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MEYER BLOOMFIELD.

Foundation Stones of Success
Edwin Markham, Editor-in-Chief

VOLUME VII

Finding One's Place in Life

By
Meyer Bloomfield



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Introduction

A human misfit is a human tragedy. To go through life chained to a task for which one is unfitted; to engage monotonously day after day in work which is distasteful; to fail of opportunity through lack of preparation; these are the unhappy experiences of a multitude of men and women, who thus not only fail of the greatest usefulness to themselves and to society, but spend their lives in discontent.

Consciousness of these conditions now begins to assert itself and to find expression in discussions and in organization for "training for life," "vocational guidance," "efficiency," etc. We now realize that in the vast complexity of civilization there is a human wastage which is preventable just as human disease is preventable, and that by applying scientific methods of investigation and education, we shall be able eventually to accomplish a great deal in averting the tragedies which I have mentioned.

The problem is one of childhood and youth. The factors bearing upon it are those of the home, school, industry, and society, or speaking broadly, environment and education. How shall these factors be co-ordinated and organized to keep pace with the large demands of modern life upon the human race?

Formal education is a matter of organization for which society is responsible, but behind all the organized agencies for training and guiding youth stands the fundamental institution of the home for which parents are responsible and for which there never can be any substitute. The school can furnish opportunity, but the home is the source of character, of spiritual quality, of that nurture and culture the presence or absence of which

profoundly influences the development of the young human organism along good or bad lines.

Formal agencies for the solution of these problems are already developed to a fairly satisfactory degree. Meantime the home has not kept pace with the school as a co-operative factor in the training of children, while society in general actually seems to exert an antagonistic influence through its innumerable pleasures and distractions. The work of the schools is thus too often nullified by the influences of environment and the lack of home guidance. What the school seeks to build up is being constantly undermined and destroyed by the increasing distractions of modern life in which young people are sharing more and more. The home, which should oppose these tendencies, too often aids them. The result is a movement away from those conditions which are most desirable for the development of youth into an efficient, useful and contented citizenship.

When we discuss this great problem or when we undertake positive steps toward its solution, we at once realize that the home is the key. How to obtain in the home that sympathetic, wise and effective training and influence so necessary to the child's proper development under modern conditions, is indeed a serious question. Many parents who earnestly desire to accomplish these results for their children are nevertheless unable to grasp the problem, if indeed they are not quite ignorant of the methods of modern education and child training; while unfortunately, many others are indifferent to the importance of the whole subject. There exists, therefore, a great need for the enlightenment of parents and an awakening of the public sense to the importance of home training and home co-operation in carrying out the new educational aim of preventing human waste.

A work like this which has been prepared by Dr. Bloomfield will be of assistance to those parents who realize their great responsibility and seek guidance. It

is, moreover, a useful and needed contribution toward counteracting those increasing influences which are hindering youth from getting the right start to do the world's work.

W. E. Stone

Purdue University, Oct. 10, 1916.

Foreword

To Fathers and Mothers:

You are doubtless planning to join with your boys and girls in going over the large amount of informatory and, we trust, helpful material which this book presents. "But how can we hope to cover all this ground and remember it," you will probably ask yourselves, "and how shall we advise our children?"

You may feel sure that the schools will do everything in their power to help; they are indeed doing so now. But the home must do its share in helping the future worker, citizen, and home-builder to get a good start in the world's work. Some common-sense principles are believed in by all thoughtful parents, and these we should review over and over again so that we may not lose sight of their meaning and practical importance.

Parents often set up arbitrary, inelastic rules, and insist that growing boys and girls live up to them. Children are not grown-ups and should not be treated as if they were. They are only on the way to maturity; for a long time they must be encouraged to make the most of the world which is their own, a world as real as is that for which we are preparing them. In the world of childhood and youth exist rules which grown-ups must respect if they are to be anything but intruders in that world.

Children differ and have the right to be different. Good manners and right conduct must everywhere be the same, or we have conflict, but growth must follow the line of varied human nature; it makes the world interesting to find different natures expressing themselves in different ways. No good doctor uses the same formulas for all ailments and for all people. No wise parent will expect every child in the household to follow rigidly one set programme for the entire family.

Every child inhabits, as already pointed out, a world wholly his own. It is the business of his adult friends to send into this little world as many helpful ideas as possible. But the foremost and most important duty is to find out just what each child's nature really is; for his world is fashioned in harmony with his nature. It is also the child's chief business to discover that nature, and many of the childhood activities are intended for just this object.

There are homes where the children seem to be growing away from the parents; misunderstanding and friction have crept in; a sense of strain and uncertainty is present. But there are homes, too, where team-work in perfection shows. What makes the difference? To help others become themselves—unlike us—is harder than to mould them after patterns we devise. It requires much tact, sympathy and imagination to turn from arbitrary methods of development which bear the stamp of our own natures, and to follow the growing child with help suited to his own peculiar individuality.

We shall see in the course of these pages how important a life-work purpose is to any real success in the future. There is one wonderful possession of the child nature which should be understood and encouraged to the full. This is the child's imagination. If your boy should tell you, as he glances out of the window, and this story is related by an authority on child-study, that he sees a great big lion, what will you reply when on looking out you see a dog instead? "Why, Johnny," replies the mother in the story, "how can you say such a thing? You know very well that was only a dog. Now go right in the corner and pray God to forgive you for telling such a lie." Johnny goes. When he comes back, however, he announces triumphantly, "See, Mother, God said He thought it was a lion Hissself."

The things of our world speak to the child a real language, just as in the childhood of the human race, stars

and stones meant something almost human to the men and women of the caves. Imagination makes not only dreamers and artists and poets, it makes the great workers in all the crafts. Imagination has created all our tools, our comforts, our industries, as well as our arts. Imagination is one of the most practical things in the world. Every engineer will tell you that the big feats of his profession are feats of the imagination as well as of calculating science. The bridge as well as the painting, the locomotive as well as the statue, are fruits of thinking in images.

The home, therefore, should make constant appeal to the growing child's imagination. For this reason we need, though they be few in number, good pictures, books, and above all else, good suggestions which stir the child's ideas and fill the child's mind with visions of the great world and its work and service.

Every child should have the opportunity to use tools and work out things for use in the home and classroom. This is suggested not in order to make or discover mechanics, but because no education can be thorough which leaves out handwork. The world we know and get so much from has been developed by tools and by ideas. Both tools and incentives which make ideas grow should be furnished to every child.

But when we give a boy a hammer and a piece of wood we do him little service unless we show him the cost of the material he uses and the value of time. There is no better way to teach thrift, the saving habit, economical ways, than through keeping account of the value of labor and material. The home and the school are continually using time, labor and goods. The flour in the kitchen, the chalk and text-books in the school room, all supply topics for thorough lessons in prudence and economy as well as opportunities for lessons in geography, science and human intercourse. Nothing that is done in the home and school is really meaningless. We can use the hum-

blest services, the familiar, everyday routine of the household and the schoolhouse for vivid illustration and permanent influence in character and career building.

There was once a public school building in a large city which children used to deface with chalk marks. Its white limestone trimmings tempted to the use of colored crayons. After the sensible principal of this school talked to the children one day on the actual cost to the city of keeping its schoolhouses clean and attractive there were no more markings on the building.

If education means training for service, the children should be encouraged to serve and be made conscious of the helps which they receive. They will never appreciate service except as they render it themselves. We spoil children and handicap their future usefulness if we accustom them to accept the labor of others without at least a return by way of appreciation. The growing boy and girl should at times help in buying food for the home, preparing it and serving it. They should assist in household chores. But care should be taken not to lose sight of the educational meaning of the work. We make the serious mistake of allowing children to believe that learning is a matter for the school alone to concern itself with. All life is a process of learning; all work is educative if we understand its significance. Life-work purposes develop out of the countless daily little experiences of growing children. We cannot tell just which experiences are going to be the most telling. Our business is to make the most of opportunities we have for inspiring and developing our boys and girls, to reveal the high importance of the commonest acts and objects.

After all, most of us expect to live normal lives among normal people engaged in the workaday business of the world. We have not begun to make use, as we should, of the common occurrences of the day. They have great teaching value for us and our children. As a matter of fact, they do teach whether we realize it or not, but often-

times the instruction is not of the kind we should desire. A child who sees waste, untidiness, and thoughtless routine in the management of home affairs, is learning to develop these undesirable things. Some day the work in the shop or office may exhibit these very defects of early home surroundings. Indeed we do find just such cases. Both parents and teachers are continually preparing children to do their work in life well or ill. So long as we are near children, thrown together with them, and live with them, we are teaching and influencing them in mysterious and innumerable ways.

Any open-minded reader who goes over the material in this book with reasonable care must note the underlying purposes of all that has been written. What are these purposes? They are as broad as life itself. There has not been in any detail connected with the preparation of these pages a narrow view of education, but the inspiration of living a full and rounded life. Although much stress has here been laid on the vocational aspects of a youth's upbringing, the chief aim has been to make these aspects bear on the larger issues of conduct and citizenship.

No time in life is so troublous as the adolescent period. The parent needs every resource of wisdom and insight to prove a successful friend of perplexed youth. For a time the growing boy and girl seem to slip from the sheltering anchorage of past influences. On billows of an unfolding self, youth apparently drifts without a rudder. Instability and hesitation mark this period—perhaps also a touch of irresponsibility. The self is coming into the foreground. It is a "touchy" sort of self. The adolescent is sensitive, self-conscious, emotional. The imagination seems to have caught its "second wind." We note the budding of a social conscience. Youth cares, feels pathos and relationships. The adolescent is coming into a world of people and is aware of their many-sided activities. Friendships now count more than ever;

ideals, companionships, the daily tasks take on deeper meaning and begin to tell on behavior.

Up to the adolescent period the home and school have been the chief educational forces—from this time forward the whole world becomes the youth's teacher. Never so much as at this time do parents need to know how to bring to their growing children the material out of which the children themselves develop the sense of duty and the impulse for service. The parent will need all of patience and sympathy that can be mustered for this difficult task of guiding the adolescent. Moreover, the parent must know how to interpret the active world to the active soul of the youth.

In a word, the parent can educate and guide youth only as the parent once more becomes pupil himself. The parent's example as learner is more effective than that as teacher. Children, particularly at the time when they may leave school for work, are inclined to think that school is one thing and occupation another. A sure way to stop growing is to stop learning. Therefore, one chief value in the present volume lies in the opportunity for systematic study which it affords to those whose privilege it is to help youth find a "place in the sun."

In later pages we speak of the great voyage of discovery which every child is privileged to undertake. The child must in the end be the captain of his own soul and self. But the parent may serve the young navigator, quite as our government serves every pilot and the skipper, with charts, weather signals, coast survey and nautical information. The government constantly sounds the waters, and organizes the assistance for the navigator which no individual alone could effect. So in a lesser but not less real way, the home must serve as beacon as well as convoy—reaching out its help so long as youth can be served with warning, comfort and direction.

M. B.

Boston, 1916.

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CHAPTER I

A PERSONAL WORD TO BOYS AND GIRLS

HAT shall I be when I grow up? How can I reach the place in the world's work to which I aspire? You have doubtless asked such questions of yourselves many a time. And perhaps you have put questions like these in serious moments to your parents, teachers, club-leaders, or other grown-up friends.

Surely, no problems in life are more important to think about, and yet none more fascinating to work on. There is no game or sport which can be followed with more stimulating delight and profit than that of playing Columbus, as it were, to your undiscovered powers and opportunities; of acting explorer in search of your own best field in the vast area of the world's business. The more you care about such matters the more interesting do your daily tasks in home and school become, and if you greatly care, you will find a fresh zest in everything you do, whether it be work or play.

Exploring
Life

The truth is that every healthy boy or girl wants to amount to something. You respect, as a matter of course, those who are doing any useful work, whether they be in humble or conspicuous places, and you find that everybody else respects them, too. All about you men and women are busy doing many interesting things. Highways on land and sea are alive with the comings and goings of people; fertile farms are sending food to the cities; while slender wires across hill, plain and street and even the unseen forces of the air, are tingling with the messages of a busy world. Many a time you have watched your teacher in the classroom or on the play-

The Busy
World

Admiration
of the World's
Workers

ground and admired the sympathy and skill with which his day's programme has been carried through. The mechanic's sure dexterity, the doctor's modest, reassuring presence, the lawyer's practical sense, the nurse in the sick-room gently carrying rest and relief to the patient, the locomotive engineer piloting the thundering engine and a precious human cargo along the shining rails, and the countless thousands of other workers in thousands of other employments have appealed to your imagination and have stirred you with visions of a universe of active service. No doubt you have pictured yourself now and again as one of these workers, and the thought has filled you with enthusiasm.

The Great
Price of
Success

Now these busy, useful toilers and servants of mankind once were boys and girls just as you are, and they, too, watched grown-up people in their work. They, too, dreamed of a place in the stirring life all about them and thought of what they would like to be when they were ready to go out in the world. They played their games, enjoyed the companionship of their fellows, studied their lessons, and as they grew up they thought more and more seriously about their future work. If these people you admire should talk to you in person, they would tell you of days and nights of hard study, serious reading, arduous labor, and oftentimes disappointment, while they were on the way to the fulfilment of their ambitions. They would say also that despite handicaps and setbacks an unflinching purpose carried them through all trials. Their skill and success never came easily. For every bit of achievement they paid the price of toil and determination. And because toil and a purpose which knows no turning aside are forever the conditions of achievement, these honored workers would, if they could see you face to face, plead with you to look upon the golden days of your youthful health and strength as the time of richest opportunity, as the seed-time of manhood's and womanhood's harvest.

A wise man has pointed out a striking fact in the biographies of the men and women whom the world is glad to honor. The early youth of many of the world's famous men and women shows a rare strength and singleness of purpose. Although they played as all children should do, and keenly enjoyed their leisure hours, there was often something striking, something amazing in the earnestness and intelligence with which they went about their tasks. There seemed to be some hidden source of power from which they drew strength to do their work well. There was persistence, and inspired energy in their work and conduct. What was this inner stream which flowed through their lives and seemed to bathe their thoughts and acts with strength and made their being-alive a blessing to the world?

**The Signs
of Greatness**

A purpose to amount to something, to be something among the thinkers and doers, this is the keynote in the lives of those whose names are written large in human annals. While yet young, they had set a goal before themselves which they intended to gain, and the determination to win their goal was the compass by which they steered their lives through all trials. While their companions drifted along without much concern, often indifferent to what was going on all about them, these purposeful boys and girls who later achieved distinction were keenly interested in their surroundings and were always trying out their own abilities. They marched ahead to the place which they had set their hearts on as the one place in which they could best serve their fellows. The road was not always smooth. We know indeed how stony it was for some. Even to get the schooling which they so much wanted, many of them had to do all sorts of hard work outside, so as to pay for their books and clothing, and help out struggling poor parents at home. But they were glad to do such work, however painful, because they were marching on to their goal.

**Marching
to Their Goal**

We think carelessly about what we call success. How

many boys and girls could really define this very hazy word and bring out the idea of struggle and great exertion which success has always meant in the careers of those whose names are cherished in history? In a careless manner we are prone to judge success by its glammers and show. We look only at the accomplishment and frequently forget the steps which have gone before. Nothing could be more misleading. Success is not a simple result, a finished thing by itself. Success is no more simple than is life. It is a sum, an addition of light and shade, ups and downs, pain and joy, want and plenty, defeat and triumph. Achievement is never like a canoe-trip on placid water; it is more like an exploration through a wilderness with toil and sacrifice as common incidents, necessary in the making of the true explorer.

Every genuinely successful life makes it easier for others to live successful lives, just as the work of the first explorer opens the way for others to follow with less difficulty. And because of this service for those who come later, the earnest pioneer is willing to take the scars and the sufferings, which are of minor importance in view of the help which all pioneer work brings to the world. It is good for us to keep in mind our debt to the great workers and pioneers; to the writers who have given us books as lamps for our thoughts, to the inventors whose tools do in minutes the work men used to take days to do, and to all who in character and service have shown how life is to be lived. We owe much to these forerunners and can repay them in one way only—by remembering that we, too, are the forerunners of those to come and that we have a pioneer work to do.

Your future careers are virgin continents which await your blazing of trails; your tools for this expedition are the habits, character, intelligence, knowledge, and determination which you have or develop. Every boy or girl has a pioneer mission ahead, a mission which lasts as long as strength lasts, a mission to explore and bring to

light whatever hidden gold of talent and service there may be concealed within the undiscovered territory of his or her own gifts and powers.

To plan, therefore, for your future is to do genuine work of exploration. You will need something of the explorer's fortitude, hopefulness, and great purpose. But at all stages you will have the explorer's satisfaction of opening up new pathways, of finding by the way novel sights and refreshing experiences. You will not mind rebuffs, because you know that each setback only hardens you for more effective effort, and with each new effort other efforts grow the lighter. The aim of the chapters which follow is to help equip you for the great voyage of discovery which it is your good fortune to undertake, for a trip among the occupations of the world in order to discover where you will be of greatest use to yourself and to your fellows. The next two or three chapters deal with some of the serious questions which arise when we neglect to plan and prepare for life's voyage, while the main portion of the book will try to give a sort of compass and navigator's chart in the hope that the boys and girls who read it seriously will find it easier to set out in quest of the place which their energy, training and ability entitle them to have and to hold.

A Chart for
Young
Explorers

CHAPTER II

DRIFTING OR STEERING THROUGH LIFE

NEVER have boys and girls had it so much in their own hands as now to settle some of the biggest problems in life. Although parents do much, and the public through its schools, libraries, and playgrounds are doing more for boys and girls than has ever been done before, the fact still remains that young people to-day are settling, largely by themselves, such great questions as what they shall be in the world, how well they shall be prepared to take their place among the world's doers, and how they shall use the very precious hours of school, occupation and leisure.

Plunging into
a Job

In many a school boys and girls decide to leave for work just as soon as the law will let them. In many cases they leave before they have finished the elementary school; they drop out from the lower grades just as soon as they reach their fourteenth birthday. In some cases, real need at home makes it necessary for children to get work, any kind of work, as early as possible. But in a vast number of cases the boy or girl fancies that working in a store or office is more interesting than staying in school. So they take their plunge into working life with no idea as to where they will come out a few years later, and with no thought as to how they might fit themselves to do the work which holds out the best opportunity for them.

So eager are they to begin "life," as they imagine, that they neglect to think about the need of fitting themselves to fill a place in which they can be of the largest use to themselves and the world. They have not as yet found out, what later they may discover to their sorrow, that

more and more the world wants those who are trained to do work of a definite kind with skill and decision. Too late many a youth learns that the big opportunities come only to those who are fitted to take advantage of them; that luck plays but very little part, and purpose and preparation a very large part, in all achievement.

In other words, although many boys and girls are trying to settle their future for themselves, they have not awakened to the fact that no life-career can be settled through whim, impulse or accident. Nothing can be of greater importance to a growing boy and girl than planning for the future, and no subject needs more thoughtful, earnest consideration, and search for the best help and counsel possible. There never has been a time when such life-work planning has been so much needed as the present. All the trades, professions, and businesses are undergoing great changes. The application of science and new ways of doing things are changing even the very furniture and fixings of shop and office.

**Planning
Ahead**

Now the boys and girls who merely drift into jobs, without aim or plan, are not building a career at all. They do not know the difference between a job and a vocation, and as they have no purpose in choosing an occupation, the chances are that they will float from one place to another, and never stay long enough in any of them to learn anything of real value in advancing themselves. As they have not really studied the facts of the different vocations they have little to guide them in choosing the kind of work they can do best. The result is that positions are taken, not because a future career is offered, but because of such trivial reasons as that the work seems easy, the companionship agreeable, the hours short, or the pay attractive.

**Trivial
Reasons in
Selecting Jobs**

Later on, when more serious needs and aims develop and perhaps ambitions are awakened, these young workers, once so eager to get out of school, begin to wonder if they really have been using their time and energies

How Are You
Using Your
Time?

wisely; they ask themselves what they have been learning that will lead to something better; indeed they question now, for the first time perhaps, if they are worth much more than any other untrained youngster just out of school. Perhaps they compare their progress during the precious years of early youth with that of others who have been using all their spare hours, giving up a good deal oftentimes, so as to enable them to do something more than unskilled and everlastingly juvenile work.

“Blind-alley”
Jobs

Such self-comparison does good, although, unfortunately, it is made too often when opportunity after opportunity has slipped by forever. Too late do many boys and girls discover the difference between what are called “blind-alley” or dead-end jobs and vocations. A blind-alley job will employ any boy or girl, no matter how aimless he or she may be as to the future, and perhaps pay fairly well for what seems to be light work, but in such jobs nothing is gained in the way of real skill; they do not call for reading and study; in other words, they do not train, and therefore can never really lead to anything worth while. Some of the best occupations pay beginners very little, but year by year they teach something of value; each year counts and leads to something better; each year advances those who study and keep on growing and learning all that can be learned in the work. In a very few years we can see a wide gap between the prospects of those who have been blindly drifting from one unpromising job to another, and of those who have been climbing step by step to more and more skill and knowledge and power.

The years from fourteen to sixteen have been called the “wasted years” in industry. The thought is that these years are so precious in career-planning that it is highly important to use them as much as possible in preparing for what we care most to do and can learn to do well. These youthful years are indeed golden, and for many decisive. They mark a turning-point in many lives.

At sixteen we should know better than at twelve or fourteen how much we owe to our teachers, friends, home, books, and our surroundings.

Between the ages of fourteen and sixteen we should begin to work for the place we want to win, with resources greater than we can command during earlier years. When we finish the elementary school we have the high school before us and many special kinds of schools. In the high school we often find several courses or departments open for our choice. In all these secondary schools we find keen interest in the colleges which high school graduates may go to, or the great professional schools, or perhaps the business openings which are ready for the bright high school graduate.

**The Golden
Years for
Career-
planning**

Clearly the high school is the place for trying to settle on a life-calling. In the elementary school we cannot expect final decisions to be made; but very important decisions can and should be made in the high school. In the first place, we decide at this point, whether or not we shall use our school life so as to help us form good habits of work, doing well whatever we have in hand, and finishing whatever task we have begun. Above all else, we should decide rather early in life whether we shall be drifters or strong, purposeful men and women.

Now it is a bad thing to drift, and no one takes proper advantage of his school days without some aim and desire as to the part he shall play later in the great world of effort. It does not matter if we change our ideas of what to be during early school days. Many a rough sketch is made by the architect who plans a building or by a painter who dreams of a picture. Model after model is made by the inventor and sculptor. But every discarded effort, however crude, made with a definite goal or ideal in view, is a step nearer to fulfilment.

**Sketching
Our Future**

Every normal boy or girl has some particular talent or talents, some interests more alert and some powers which are more pronounced than others. It is a large

**Finding Out
What We Are
Good For**

part of the business of the school and the home, and of the child, too, to find out just which are the strongest interests and capabilities of each, and to give these a chance to develop. They may not always develop. They may seem to vanish or to merge into new or hitherto undisclosed gifts and desires. This is well; again the school and home must respect these fresh signs of character and possibility and make the most of them. Destiny does not reveal all her secrets at once, but of this we can be sure: Whatever children, and grown-ups, too, put their best efforts into, is likely to be a blessing both to them and to the world, and wherever interests and talents find real scope there the most fruitful endeavors are likely to be found.

Somewhere in every programme of school and home life children should be given an opportunity for discovering what their powers are. Where wise teachers and parents have done this, fewer young people become drifters and ineffective workers; schoolwork takes on new interest and the desire to prepare for a career becomes a mastering force.

**How Schools
Help**

For this reason the schools are undertaking new and most interesting duties. A modern school is unlike the school of a generation ago. Those who plan school buildings to-day must think of things which were not dreamed of twenty or thirty years ago as belonging to a school. We now make provision for school doctors and nurses, playgrounds, school shops, school kitchens, home visitors, vocational advisers, and departments which are like the businesses which we see in the world outside. All these opportunities have come in order to help boys and girls get a good start in life and to end the waste which is sure to follow a wrong start in life; they have come because it is impossible for anyone not a special student of an occupation to obtain a thorough knowledge of it.

Hundreds of new professions and trades have been or are developing because of the great strides made in



BUILDING A MODERN SCHOOL.

transportation and invention, because of the vast growth of cities and countries, and because of world-markets and the free movement of masses of people from country to country. Years ago conditions were simpler; the neighborhood perhaps was small, and the neighbors few. Shops and factories and offices were not very far from home. Often several members of a family worked in one place, if indeed they did not own their own shop or store.

Now all this is changed. Years ago a few men made a whole shoe and a shoemaker was something more than a cobbler. To-day in the big shoe factories of Massachusetts and of the Middle West hundreds of men and women work at machines which make all the parts of a shoe, doing all the sewing, stitching, and polishing. A shoe to-day is made in from one hundred to two hundred different operations, some of them highly skilled, and all of them calling for great speed and endurance. Although a tailor may yet make a whole coat, we find in the big Rochester factories where men's clothes are made, from fifty to sixty different persons working on one coat—some making buttonholes, some pockets, while others attend to the linings, pressing, and so on. Great bakeries are taking the place of the small neighborhood bake-shop, and dozens of different kinds of special operations are found in the large bread factories. The department store of the present day is divided into many separate departments or stores. The old-fashioned general store-keeper would find himself lost amidst the great specializations of such a store. It takes much study and ability to rise to the important positions of such a store. In the professions of law, medicine, dentistry, in most professions, indeed, the same growth of new specialties is going on.

The vocations need to be studied to-day not only from the angle of their multifarious subdivisions, but also of their effects on health and well-being. There is a mass of special literature, growing in volume, which deals with the special problems of health in the various trades.

Advances in
the Twentieth
Century

Health and
the Job

There are studies of lead-poisoning in lead-using industries, tuberculosis in dusty trades, and fatigue and nervous breakdown in occupations which involve much monotonous repetition of the same motion of the hands or body. One must know something about these vital matters before deciding definitely on an employment. Often it is a matter of life or death to possess this knowledge.

Moreover, many of the best openings in all occupations are reserved for those who have taken special courses to be fitted for them. In every State there are various special schools which prepare for the skilled vocations. Nothing can be more profitable and interesting for home and school study than the catalogues of these schools. A boy or girl might start a useful home library of these educational catalogues and in using them with the teachers' help find out where to go for the best training in a chosen work. Such knowledge is real power. It gives definite direction to ideals and desires, and opens up new channels of opportunity.

Many schools have begun to give such educational information as part of informal class talks and exercises; in connection with parents' meetings; or as lessons in civics, geography, or economics. To know about the different vocations of a town or State and how best to fit for them is to get a good start on the road to citizenship.

In order to help the boys and girls of her class, a certain high school teacher made up an interesting programme of class talks on the trades and professions. She stimulated the class to think about the various callings, and one question she put to each pupil in respect to his chosen occupation probably stirred more thought and interest than any other. It was, "What service to the community do you expect to render by choosing this vocation?" Many a boy and girl had not looked upon choice of a life-work from this viewpoint. Indeed, how many people do? Yet those who go into their life-work with an ideal of service are the honored of the land.

**Study the
Catalogues
of Special
Vocational
Schools**

**An Interesting
Programme**

Developing plans and ideals for future service, then, is one of the most precious activities which school and home can encourage. But the building of a life-career is not accomplished through mere wishing and dreaming. Desire does not move things. It is the physical, moral and mental energy back of any ideal which determines how far it is to be realized. In all good work, energy is one of the big items in settling success or failure.

**Energy and
Success**

Because the sense of masterful vitality in whatever one does is so important, all who direct the vocational interests of young people believe strongly in athletics, school gymnastics, camping, walking, simple food and plenty of rest. They know that a strong body, a rested frame and a clear brain, are needed to further a purpose in life. Very often the career which boys and girls say they wish to go into, or the work they say they wish to do, gives a good hint not only as to their intelligence, but also their physical condition. That story told by a friend of boys, Dr. John L. Elliot of New York, is much to the point: A pale, weakly-looking urchin applied for work one day at the boys' club-house. "What kind of place would you like, my boy?" he was asked. The boy languidly answered, "Oh, I want a place where I can sit down." Assuredly, health and achievement are pretty much tied up together. There have been striking cases, to be sure, in history where against the handicaps of a crippled body and a broken constitution great work has been done, and the world left a debtor to these wonderful men and women. A titanic will-power, a moral energy that could almost move mountains, made up for what these heroic workers lacked in health. Nature has a way of helping those who really try.

**The Importance
of Health**

Energy, health, and good habits are needed to-day in the occupations perhaps to a degree never before called for. The whole world of business and manufacture is being swept by a movement which is called the efficiency movement. New professions are arising which aim to

**The Efficiency
Movement**

point out how to better ways of doing work. Men are carefully studied at their lathes or desks, and every operation noted, whether it be in typewriting, laying bricks, or building a great machine. The result of such efficiency studies has been to make a greater demand than ever before upon clearness of brain, good eyesight and hearing, and a thoroughly sound constitution. Weak people cannot hold their own in work carried on with such efficiency demands. Stores, offices, and factories are beginning to keep records of their employees in a way which is bound to sift out the careless and the untrained.

**Knowing
How**

It is almost impossible to-day to "pick up" a trade or any other work and feel sure that we have mastered it. Conditions are more complicated than they were fifty years ago. Employers are too busy to teach; they expect others to attend to the teaching. In the professions, too, the standards have risen year by year. It costs more to become a doctor or lawyer to-day than ever before. To be successful in agriculture requires a scientific preparation such as an agricultural school or college alone can give. Girls who know how to cook, cater, and plan meals for hospitals, nurseries or other institutions are in great demand and are respected and paid like any other trained professional worker. Not so long ago any woman could hire out as a nurse. To-day no doctor or patient cares to employ a nurse who has not been thoroughly trained in a school for nurses. Teaching requires long preparation; and positions as special teachers in drawing, cooking, sewing, manual training, playground work, stenography, and the arts and crafts are open only to those who have special qualifications, training and experience.

In time, every worth-while employment, if not all employments, will work out standards, too, and standards for any work always have the effect of shutting out those who cannot come up to them. Efficiency is the keynote of all twentieth century work, and to be efficient one must be trained. This age will not tolerate the wasteful meth-

ods or the crude devices of the past. Expensive machines only a few years old are often discarded for new and more costly machines which promise better, more economical, and larger results. Every day there is a vast casting aside of old methods and material. Workers unable to meet the new demands are unfortunately thrown out, too. There is keen rivalry for every good position. The inefficient, the weak and the aimless are not wanted.

Standards

Because the world is making such drastic demands upon the coming workers, every thoughtful man and woman, every teacher and reflecting parent, is planning ways to fit the children for the life and needs of this new century. The new opportunities for special education in our towns and cities have come in order to help boys and girls to find their places in the work of the world and to hold them successfully.

This is the explanation for vocational schools, industrial classes, school shops, and courses in business, millinery, cooking, printing and the like. The colleges and universities are adding vocational courses to their programmes. We now have college schools of journalism, commerce, engineering, dentistry, and domestic science,—in addition to those of medicine, law and theology. The list of special schools is a long one. In time it will be much longer. Evening schools offer special training facilities for those who are already at work.

**New Kinds
of Schools**

All these new schools are intended to meet the new efficiency standards of the age. They are intended for boys and girls with energy, ambition and ideals to amount to something in the world; they show that education has taken on a new and broader meaning. They clearly indicate that hand-education is as valuable to hand-workers as book-education is to those whose tools are books. Anyone is educated who keeps growing in sympathy, skill and power through work, no matter what the work may be. The world belongs to those who grow. Youth's greatest duty is to grow into efficient manhood and womanhood.

CHAPTER III

PLANNING A LIFE-CAREER

IN THE preceding chapter we saw how the great changes in methods and organization of work make it impossible, without special study of the matter, to know much about the work of the world. Many people talk about the vocations without special knowledge; they think about them in terms of an earlier time, for a few years often make a vast difference in the growth of a vocation. Perhaps they have only impressions based on scattered observations. They may have a fair notion of what the vocation means, but impressions are insufficient for purposes of vocational choice.

To-day, therefore, a number of specially qualified men and women are spending time in looking into the conditions of various occupations. Their published studies not only tell about the wages, hours, and other facts of vital interest as regards certain employments, but, what is of equal importance, they show, among other things, whether the work lasts through the year, or keeps the workers busy for only a few months and then lays them off. We have lately begun to learn something about seasonal employments, as they are called, and we now know that occupations which may pay high wages for only a few months in the year are not nearly so desirable as those which pay smaller wages but are steady and keep the workers busy throughout the year. In other words, it is well to know what a worker receives not in weekly but rather in annual income, for living expenses go on just the same whether work is temporary or steady.

Public authorities, like city and state boards of health,

Impressions
Insufficient

Special Study
of the
Vocations

and sometimes official commissions specially created for the purpose are investigating employments to find out if they involve any peculiar dangers to health, or life, or morals. Public conscience has grown sensitive to the matter of physical and moral risk in employments and many new laws have been passed in the States for the purpose both of safeguarding workers and of shutting out those too young or otherwise unfit.

In the State of Massachusetts, for example, and there are other States with like laws which protect young workers against injury, no child under sixteen is allowed to work at or near such dangerous machinery as circular saws and many other kinds of swift-moving tools which cut or stamp. We have seen many pathetic cases of young persons who have lost fingers, arms or legs, while working near belts or sharp knives moved by steam or electric power. The country does not want to see its children injured in this way, and consequently factories are visited by officials to ensure that the laws for safeguarding workers are enforced. The laws in some States go further and try to keep children from working in places which are not helpful to character-building, for the country is anxious to guard its future citizens against moral as well as physical dangers. So children may not work in tobacco factories, liquor stores or billiard rooms. Bad companions are as dangerous as buzz-saws. Every home also should ask the question, What sort of associates will our boy and girl find in this or that trade and business? Are the workers and the surroundings probably such as will strengthen ambition, good habits, and efficiency? No wage or salary, however high, can ever make up for the bad results of low associations. People everywhere are so convinced of this truth that laws have been passed, and many more laws are sure to be passed in the near future, to keep children away from occupations which debase character.

We have good reason to rejoice in the growing desire

**Protecting
the Young
Worker**

**What Sort of
Associates?**

**Work and
Citizenship**

to make the vocations help in the building of good citizens. The more people care about such things, the better for all the vocations as well as for the workers in them. But many years will go by before we really do this duty well, the duty of lifting every occupation into a force for good citizenship. One sure way of helping to bring this about is to disseminate more and more knowledge as to what the vocations return to their workers in the way of ennobling influence.

**Keeping Up to
the Standards
of a Profession**

Everybody respects the doctor because in this profession the standards are so high. The doctor must think of his patient's welfare above everything else, and must sacrifice himself, if need be, to this end. In the interests of their profession doctors have lost their lives, and in so doing have shown other physicians how to save lives. We have all read of the heroism of those doctors who discovered the cause of that awful scourge, yellow fever. In order to prove that this disease was carried by insects, two surgeons allowed themselves to be bitten by mosquitoes which had previously bitten yellow fever patients. The result was that the disease was communicated to the doctors, who died, but their work enabled us to build the Panama Canal under healthful conditions. So we know that a ship-captain or a locomotive engineer must think of the passengers first, no matter what the danger may be. We expect sympathy in the teacher and integrity in the lawyer and business man, and where these qualities are missing, all the world condemns those who fall below the traditions and standards of the profession.

Now it is not too much to hope that the standards of all the work which the world carries on will in time be raised, so as to make fine men and women of all workers. It is only because we do not use our imaginations that so much of the work done now falls below this ideal. But we are making great advances in this direction. In some localities, it is true, very young children are still allowed

to work long hours without any schooling or play time, and there seems to be little or no anxiety felt as to the kind of men and women they will become. But gradually the world is becoming convinced that boys and girls who are not given a chance to fit themselves through study and play with strength and happy ambitions for the work of life, turn out to be very poor citizens.

Tired men and women with no strength left to improve their minds and lives, doing any odd jobs for a living, or working long hours for very little pay, cannot be expected to help their country to develop as it should. Because we gave so little thought to such matters in the past, many a promising life has been destroyed. It is quite likely that we cannot do away with all danger and fatigue no matter how much caution we use; but of this we can be sure, the more attention we give to the matter, the greater will be the number of people we can save, and the smaller will be the number of accidents and cases of disease.

Protecting
the Worker
From Excessive
Fatigue

Work is done nowadays under such pressure, speed and turmoil that some constitutions unable to bear the strain break down. Hours of labor have, therefore, been shortened, night-work prohibited to women and children in many industries, and laws passed to help ease the burden under which people toil. Moreover, enlightened employers have been trying on their own account to lessen the strain by providing rest periods and recreation for their workers. In some countries, very backward in humane ideas, men and women, and children too, may be seen laboring like beasts of burden, and apparently there is no concern felt by those above them as to how the work affects them, or how the nation as a whole deteriorates when it suffers the overwork and the breakdown of its people.

Overwork

But in all advanced countries there is now keen interest in the industrial life of the people and a growing desire to keep the workers in sound health, fit for their

**The New Ideal
of Citizenship**

work and civic duties. Because of this new ideal of citizenship, friends of boys and girls are concerned that the work they go into shall be safe and proper; they are concerned, too, that each youth shall be given the opportunity to make the most of what it may be in him to be. This indeed is a great goal for any nation to set before it—that every child shall be encouraged to make the most of life, to be efficient, to be self-supporting, and useful to self, family, and society. But even to approach the goal is not easy, unless the public, the home, the school, and even the boy and girl themselves, all help.

**How Boys
Used to Start
in Life**

In the Middle Ages parents who wanted their boy to have a good start in life and an assured future would bind him over to some employer, apprentice him, as it was called, and pay a good round sum of money for this opportunity of their boy to learn a trade. The boy must then be “indentured,” that is, settled with the employer for seven years, living with the master in his home during all that time, working with him in the shop, and otherwise being wholly under his control. If the boy ran away, the authorities must look for him and bring him back, where punishment was sure to await him. But boys did not run away much. Although the discipline was very severe, in some instances altogether too harsh, boys were glad to be able to learn a trade so that some day they might be masters on their own account with apprentices to help them. Without such apprenticeship there was little or no opportunity for the boy to amount to anything. There were no schools or libraries or boys’ or girls’ clubs in those days.

The masters, or master-craftsmen, and the professional men, too, of the Middle Ages were organized into powerful bodies called guilds and no one could enter any occupation without the preliminary seven years of service. No wages were paid to the apprentice, although the master provided food, clothing, lodging, and medical care. But when the apprenticeship period was over the youth

who, after an examination by a committee of the guild, showed proficiency, was admitted after a trial term to the full privileges of the craft. These privileges often carried important civic rights such as free citizenship and the right to travel from place to place. In the course of time the apprenticeship system broke down, and when steam-power, labor-saving machinery and great factories began to take the place of water-power or human-power, and of hand labor, small shops and home manufacture over a century ago, the system of indenture almost entirely disappeared.

**The Apprenticeship
Under the
Guild System**

One result of the disappearance of the apprenticeship system is to make it difficult for the average boy to learn a trade or profession.

Only in rare cases to-day, usually in the very large stores or industries, do employers make any provision for training their employees for the higher and better-paid positions. To the well-known professions beginners must come prepared, usually through a special school. The young lawyer cannot as of old prepare for the bar by reading in a lawyer's office. A law-school education must come before the practice of law, and usually a stiff bar examination after completing the law school course. So the doctor, dentist, engineer, accountant, and teacher must go through a preliminary course of training. In this way the professions are raising their standards and weeding out the unfit. In a growing number of retail stores there are classes in salesmanship. Several public and privately supported schools are also carrying on such classes. Even the selling of goods over the counter has become skilled work. In fact, although natural ability forwards one in almost any vocation, special preparation is now necessary in addition to ability.

**Necessity
of Special
Preparation
To-day**

The disappearance of apprenticeship opportunity is indeed a serious loss, for without some such provision it is only by accident that certain abilities ever see light. It is better for people, while young, to find out so far as

Little Chance
for Special
Preparation
in Office
or Shop

possible what they can best do rather than to try themselves out in the precious years when they have already started life's work. Besides, the employer is not anxious to try out too many employees. There is little time for instruction in a busy store, office or shop. What usually happens, therefore, is that the average boy or girl is put to some simple task and kept there everlastingly. Seldom is there any effort made to find out what they could do better. So long as they do reasonably well, the one thing they are engaged to do, they keep their place. If they fail they go. Neither they nor their employer can tell anything about their real merits, about the possibilities of their success in some other task or department.

In other words, the vocations to-day expect their beginners to know something and amount to something at the very outset. They have their minimum requirements. Those who fall below are not wanted. Also a large mass of work to-day is done in such subdivided manner as to require very little real intelligence, skill or preparation. This work is done by those who have not put forth the effort, or have not had the opportunity, to make special preparation for something better. Such subdivided work rarely calls for anything more than ordinary attention and health. As anybody can do it, thousands who should really be doing more profitable and stimulating work rush in.

Subdivided
Work and
Unskilled
Workers

A word, however, is needed in connection with such uneducative, low-skill or no-skill employments. The world needs the product even of these industries; this work must be done. The question is not who shall do it—but under what conditions and on what terms shall it be done, so as not to hinder the growth of the workers? This question is important to the employer as well as to society.

The world is now beginning, though too slowly, to be sure, to scrutinize every occupation on the side of its

advantages and disadvantages. It is a blessing, of course, to be well occupied. But we are learning to regard mis-employment as hardly less of an evil than is no employment. That is, we are asking of every occupation not only questions as to hours, wages, seasons, and dangers, but also what its educational and moral influences are. It is a growing belief that all necessary work can be carried on in a way which shall be helpful instead of hurtful to its workers.

For instance, we are familiar in this country with the small figure of the blue-uniformed telegraph messenger boy. Delivering messages is useful work, but only very recently have we begun to examine into the nature of this work and the future of messenger boys. We have learned that messenger service is conducted by us in a way which is often injurious to the health and even citizenship of the boys. In some German cities messenger boys are better looked after. There they receive instruction and are generally better safeguarded than is the case with us. England several years ago woke up to the fact that it was employing many boys as telegraph messengers in connection with the post office, which in that country carries on the telegraph business, too, and that when the boys reached the age of sixteen or seventeen and were too old for mere errand work, the government simply dismissed them and took on other younger boys. The English people became alarmed over this waste, and the messenger service has been changed so as to allow the boys, while in their early period of messenger employment, to fit themselves for permanently useful work.

**The Telegraph
Messenger
Boy**

In the United States census of occupations we find something like three hundred different general occupations listed, and with the more important subdivisions the list grows to over nine thousand. Nor does this list by any means exhaust the number. If we turn to the letter "S" in the census index we find the following names of occupations:

**Nine Thousand
Occupations**

Silker	Skimmer	Slaughterer
Singer	Skinner	Sleeper
Sizer	Skiver	Slipper
Skeiner	Slasher	Slitter
Skidder	Slater	Slubber

We have chosen only a few of a long list. How many people can tell to what operations they refer?

Studying a Vocation

How shall we study an occupation? How can the school and the home help boys and girls to get a knowledge of the vast and complicated field of employment? In the next chapter will be told something about the interesting experiments which schools and other organizations are making in the field of life-career help to boys and girls. Here we shall consider some of the more general matters in the study of a vocation. We may roughly divide all vocations into four classes:

1. Those which require no special knowledge or manual skill.
2. Those which require manual skill.
3. Those which require knowledge.
4. Those which require both knowledge and skill.

The Training for a Vocation

The knowledge referred to here is that which is specially related to the vocation in question. For example, a teacher of English must have a knowledge of grammar, composition, and literature and must know how to teach. When once we find out what training and talent a vocation demands, we are in a position to inquire further as to ways in which workers can obtain their training for it. Have all beginners the chance to master the whole occupation? Is there any systematic instruction in the shop or office? Is there any provision for apprenticeship, and if so, for how many apprentices? If we find no provision for training inside the vocation, the question arises as to how and where the training may be had. And in connection with this question is the no less important one as to where the best training opportunities are.

Not only must we study the vocation from the side of training, but we must regard its demands and conditions. What qualities are demanded—physical strength, endurance, accuracy, memory, dexterity, courtesy, caution, alertness, taste, imagination? The list is endless, as we proceed to analyze what each employment calls for in the way of qualifications, yet such a list every student of vocations must make an effort to draw up, as it helps in measuring one's self in the light of the world's requirements.

**Qualifications
for a Vocation**

We have to consider, moreover, whether the work is in itself unwholesome or carried on in unhealthful places; whether it involves any peculiar physical or nervous strain; and whether it checks or promotes intelligence and good citizenship.

We have now gone over a number of points which we do well to keep in mind when we talk about any particular occupation. Many more might be suggested. A good method for any teacher or parent who is interested in planning with boys and girls their future work, would be to take a number of familiar employments, say the trades and businesses of the neighborhood, and try to make a catalogue of all the good points and bad points of each. One boy might be asked to make a list in two columns of all the pros and cons he can collect about the corner grocery store, another might bring in a simple study of what a lawyer, doctor and civil engineer need to know. Perhaps two boys, or the class in two divisions, might debate some occupation, one from the side of its advantages, and the other from the side of its disadvantages. Boys and girls who throughout the last years of school life engage in such discussions will go forth into the world with unusual preparation.

**How to Discuss
the Vocations**

Enough has now been said to show how very hard it is to take the real measure of the varied occupations of mankind. They are indeed a life-study. They cannot safely be guessed at. If children have in the past stum-

Vocations a
Life-study

bled into success and somehow made their way as strong men and women to the front, let us remember that no one writes biographies of those who do not succeed and of those who only half-succeed when a fuller life might have been theirs. Business and industry have been changed by the progress of the last twenty years. It is infinitely harder now than ever before to drift or stumble into success; there are too many ambitious and well-schooled boys and girls coming out of our training schools to-day for a drifting boy or girl to have a good chance to get ahead.

“Know
Thyself”

Much has been said in this chapter about the careful study of the points in each vocation. One reason for suggesting this is the help such study gives to a proper understanding of one's self. We really study ourselves when we study the vocations, and unless we do study ourselves we cannot plan intelligently for the work we desire. We should know ourselves in order to find ourselves. What are we good for? What can we do well? Why do we fall behind in this or that task? What habits of ours enable us to turn out a good piece of work? What habits trip us up?

The difficulties in planning for a life-career come not only from scant knowledge about the occupations but also from a failure to face ourselves as we really are. One benefit to a young person in talking about the work of the world and its demands with his parents and teachers lies in the clearing up of his ideas in regard to his own character and in the fresh inspiration he receives to enrich his natural equipment with the powers which the world prizes.

CHAPTER IV

HELPS TO A START IN LIFE

NOT since public schools began have the enlightened countries of the world afforded so many advantages in the way of help, counsel, education and inspiration for ambitious boys and girls. The advance in this respect is nothing short of marvelous.

This vast growth of helpfulness is shown most signally in the United States. City, town, and village are now dotted with splendid libraries, inviting reading rooms, impressive school buildings, and a large number of private institutions. All these monuments of intelligence and public spirit have just one great end in view—to serve America's boys and girls.

**Educational
Advantages
for Ambitious
Boys and Girls**

Go into any library and step up to the desk to ask for a book; or perhaps try to get some information. At once you meet with a friendly smile, a quiet welcome, and a prompt interest in the object of your errand. In the same spirit are boys and girls received whenever they consult the school teacher, the club director, or the intelligent citizen.

Everywhere in this country you will find men and women of noble character and thorough education interested in just one big question. It is this: How can we help all the boys and girls of our country to grow to be self-respecting, self-supporting, trustworthy, healthy, and useful upbuilders of our republic?

**Training the
Upbuilders
of the Republic**

You note, do you not, that fine people think of you not only as delightful and lovable boys and girls, they think of you as upbuilders. This is the reason why so many millions of dollars are spent on schools and libraries, and

why so many thousands of gifted men and women are at your service—all these great efforts are intended to fit you to be upbuilders. You are upbuilding all the time that you are learning how to play a game fairly and whole-heartedly; you are upbuilding whenever you make your presence in your home a source of pleasure and comfort to all who live in it; and you are upbuilding when you use your school time and your work time to make yourself worth more to those who teach you and employ you.

**A New Ven-
ture in Service**

The best minds of our day are at work on all sorts of interesting and valuable projects for the right start of young people in their life-work. Because our schools appreciate the difficulties in the way to a good start in life for the average boy and girl they are undertaking new ventures in service. Among these are the well-known movements for vocational guidance and vocational education.

**The First and
Oldest
Educational
Helps**

In a sense, one cannot say that these vocational movements are new. As a fact, they are the oldest kind of educational helps. Before books and schools became the common opportunity of people in enlightened countries, the only life-career guidance and preparation known were those connected with home and neighborhood work. Children from their earliest years saw the preparing of food, dressing of animals, and the household manufacture of articles of clothing and tools for the nearby shop or farm. As they grew up they took a hand in the work and in time they became active sharers in the family industry. In this way a training for the practical work of life came as a most natural experience to children. They had to know how to do things in order to help at home. Later when industries grew in size, employers or masters undertook the training of beginners in the shop or office. But in our time very few boys and girls of the towns and cities have any such opportunities for seeing early in life how the world does its work.

The schools, therefore, are trying to supply this training which the home, the farm, and the small local shop or office used to give. It is well that the school does so, for many of the subjects which make up the course of study give the knowledge which is required in many trades and professions. The machine shop, the big tool or automobile factory of to-day cannot stop to teach drawing and calculation; the bank does not attempt to instruct its clerks in arithmetic or penmanship, nor does the business office provide lessons in spelling and composition.

**The Function
of Schools
To-day**

In the high schools of this country modern languages are taught not only because the tongues of our sister countries are delightful subjects of study, but also because a command of French, German, Italian, or Spanish is an asset to those who go into commercial careers. Similarly physics, chemistry, and mathematics are of great help in preparing for scientific vocations, such as engineering in its many branches; while Latin and Greek are of value to the scholar, writer, lawyer, druggist or physician.

The word "vocation" means calling. Vocational education has to do with that special kind of instruction which prepares the student for specific trades or professions; while vocational guidance aims through information, advice, and special instruction to help people know themselves and find themselves in the work of the world. All the vocational activities of a school are designed to enrich the general programme of instruction which every citizen must have in order to be intelligent, with special kinds of information and help which prepare for definite occupations. If we list all the special forms of vocational education, we find that they fall under the following heads:

**Vocational
Training
Defined**

- | | |
|------------------|--------------------------|
| 1. Professional. | 4. Industrial. |
| 2. Commercial. | 5. Household Arts. |
| 3. Agricultural. | 6. Nautical Instruction. |

**Special Forms
of Vocational
Education**

Our Federal Government, the States, and many cities and towns are active in furthering the training of boys and girls in these vocational divisions, and the more the public does to promote such opportunities, the more necessary it is to help pupils select as thoughtfully as possible both the vocation and the training. The real strength of any country is its body of enlightened citizens.

In connection, then, with provisions for vocational education we find in such cities as Boston, Philadelphia, Chicago, and Cincinnati, bureaus or offices where people are helping children and parents to find out what the different kinds of schools offer and what abilities the employments require. In many cities teachers or other friends of boys and girls are regularly engaged to give vocational advice and assistance. They are usually called "vocational counselors" and they keep many a boy and girl from drifting aimlessly out of school into unprofitable, unskilled work.

**"Vocational
Counselors"**

Many cities through school departments, Young Men's Christian Associations, high schools, and similar agencies are now carrying on a useful work of interesting people in the vital matter of choosing a life-career. The New York High School Teachers' Association several years ago published some valuable suggestions to high school pupils who desired to plan a future career. They are reprinted here, as they are in convenient and concise form to be used in all schools:

SELECTING AN OCCUPATION

1. "Let the student select an occupation, find some acquaintance engaged in that work, secure an interview, and write out the results of the interview as if for a newspaper. It will add to the interest if several members of the class have the same topic. It is wise to look at the subject from as many different viewpoints as possible.

2. "Let the student select an occupation for himself and plan for himself a career.

3. "Let suitable questions for the debating society be so framed that pupils may discuss the opportunities in one line of work as against the opportunities in another; the requirements in another; the rewards of a profession as against the possible returns from a trade or a business.

4. "Let the pupils select a line of work in which they are interested and write a review of one of the books of reference dealing with that occupation.

5. "Let the student select some particular line in which he may be interested, and write an answer to some newspaper advertisement in that line."

A PLAN FOR A CAREER

"In writing a plan for a career a student should set forth:

"I. (a) His preferences; (b) the expressed wishes of his parents and friends in regard to his future.

"II. (a) His own reasons for his choice; (b) reasons in favor of or against his choice which were gleaned from books and magazine articles; (c) arguments in favor of or against his choice which were advanced by parents and friends who were consulted.

A Valuable
Synopsis

"III. His personal characteristics by the aid of which he hopes to win success in his chosen vocation.

"IV. The legal requirements for admission to the practice of the chosen trade or profession.

"V. The schools to be attended to meet these requirements and the estimated time and expense involved in preparation."

Towns, small and large, are carrying out plans for helping boys and girls in the fascinating work of surveying the work of the world, their own abilities and limitations, and how to get themselves ready for the life-work in which they are likely to be of most use to themselves and to the world.

Finally, we have, in addition to vocational guidance

and educational institutions, those organizations which aim to find the most promising openings for young workers. The schools in many localities are not content with guiding and training boys and girls into a life-work; they go further and seek to make sure that so far as possible the employer and the occupation which engage the services of the young people shall be desirable and helpful. We find, then, agencies for placement or employment and for employment supervision. They are not the usual kind of employment agency. They do much more than find jobs and recommend help to employers. No school should be satisfied with doing only this. These placement agencies are primarily interested in the young worker's welfare and growth and they aim to protect him from unjust wages, unsanitary surroundings and blind-alley jobs.

In England and in Scotland the government has established scores of placement agencies known as juvenile labor exchanges. They are doing a great work and are teaching the public its responsibility to its young workers. They stand for the idea that when a boy or girl begins work it is fatal to his or her future career or success to believe that education is no longer necessary.

Many a youth who leaves school for work fancies that studying is no more needed. Never is schooling so much needed as when work is begun. In these exchanges, therefore, the boys and girls are encouraged to go on with their education, in evening school if need be.

Some day all enlightened countries will follow Germany's example of requiring boys and girls from fourteen to eighteen who have gone to work, to attend some vocational school for eight hours a week during the working hours. At first German employers did not like to have their young workers leave the shop or office to attend school, but they now see that this plan gives them much more intelligent and efficient help.

A description of all the different organizations which

Placement
Agencies

Keeping On
With the
Education

are now at work in the field of helping boys and girls to a right start in life would fill a volume the size of this one. Besides, another volume would be needed to tell of the excellent assistance which teachers and others outside these organizations are giving in this line. Enough has been said in this chapter, however, to show those who would like to know more about this helpful guidance and training work, that they have in store an inspiring subject for further study.

But in connection with all these efforts, the most important resource is a true knowledge of what the world's work is. Without such knowledge we do not know what to prepare for, or just how best to prepare. For this reason all the remaining pages of this book are given over to that voyage of discovery and exploration which all should take among the occupations of the world.

**Knowledge
of the
World's Work**

Now, people do not start out on exploration journeys without some equipment and some foreplanning. They cannot hope to succeed if they go in a haphazard way and trust to chance for results. Although your prospective trip is not through a wilderness, or through pathless wastes, because this entire book is an attempt to chart paths, trails and roads for you, and although the demands on you as to care and attention will not be greater than you can respond to, yet there is a way of using this book which will help you much.

A book like this may be read in scattered free moments for the pleasure of the great vistas it opens up of a boundless world of busy work. It may be read, too, for the variety of information, and the insight it gives into the occupations of mankind.

**How Best
to Use the
Material in
This Book**

To be a real guide to a start in life for all who are engaged in the great enterprise of preparing to enter into the world's employments, this material should be mastered in some regular and systematic fashion. Twenty minutes each day spent upon it will, at the end of a year, fill the reader and student with a sense of having been

in touch with the innermost phases of the stirring life about us. We say reader and student; the book is written to be read, of course, but it is also written to be studied. By far the best way to study a book like this is to find out what it has to say about this or that vocation and then go out to see how far what you have read corresponds to the situation which you find in your own locality. This means that you will have to ask questions of many people, and talk over what you read and hear with your parents, teachers and friends.

Write down what you hear and see and then compare your notes with the suggestions you get from these chapters. In this way you will be constructing a vocational library of your own and in very truth developing your self-discovery powers. For the greatest help to a start in life is the help you give yourself. Nature and destiny have locked up certain great secrets about yourself in your own innermost self. What these secrets are only the keys of your own making can finally disclose. If this book helps you fashion those keys of self-respect, self-study, and self-reliance it will have achieved the goal of its labors.

The Greatest
Help to a
Start in Life

CHAPTER V

THE WORLD OF WORK TO-DAY



YOUNG person who has been well taught in school and aided by parents and teachers to find the kind of work for which he is best suited, has usually a right attitude toward work. He no longer supposes that play is the greatest thing in life. He feels that all labor which supplies something that people need is honest and honorable. He believes that all self-respecting workers who contribute to the general prosperity deserve to have a good living, a fair share of the comforts which their efforts create. He is anxious, at the same time, to earn what he himself gets and to give of his best in whatever he undertakes. Such a young citizen sees that the world of work is a place where drones and laggards have no chance.

**A Right
Attitude
Toward Work**

This correct attitude toward the problems of earning a living is very important, but the subject is not one on which a person advising young people can speak at great length without seeming to many of them to indulge in tiresome lecturing. Some minds, indeed, fail altogether to grasp what is meant by talk about the duties of a man toward his job. Many people have to learn gradually, and often by sad experience, that the large rewards of life go only to those who have been faithful to humdrum everyday duties.

**Duties of a
Man Toward
His Job**

Better than advice, therefore, which may or may not be taken gracefully by those for whom it is intended, is clear setting forth of the facts about occupations, showing what each requires of the worker and what it can offer in return for faithful and competent service. Most young people see, when their attention is called to the matter,

how valuable it is to know what will be expected of them and what they may properly expect to gain in the various kinds of work for which they may be fitted. Everybody understands that many occupations are possible—many doors of opportunity open. No one, however, who is at all ambitious wants to enter a calling in which he will be no better off at the end of ten or twenty years than at the beginning. No one would willingly spend weary months in learning to perform operations which, through the invention of new machinery, will probably very soon cease to be required and paid for. In some forms of work there is every prospect that an able, energetic person may become independent, running his own business and holding himself responsible to no superior officer. In other businesses it is almost certain that such a worker, no matter how efficient he may be, cannot hope to become more than a salaried employee. Some people do their best when under the direction of another. Many, on the other hand, will not put forth their utmost unless they feel that nothing stands between them and leadership.

THE INCREASING NUMBER OF OCCUPATIONS

Not only are there great differences among the occupations at any one time, but conditions of work are constantly shifting and changing. School history books, unfortunately, have told more about warlike deeds and politics than about the greatest glory of our country, the development of a wonderland of work, of populous cities and well-tilled fields, in a land where not many years ago savage tribes hunted the deer and buffalo. Yet any boy or girl who has read carefully such brief chapters as an American History devotes to the industries and inventions of the past one hundred and fifty years, must understand how the industrial life of men and women varies from one generation to another.

A century ago most Americans were either farmers or farmers' wives. It then required the energy and skill

of almost all the men to raise food enough to feed the people and wool and flax enough to supply the clothing needed for decency and warmth. It took the time and patient care of nearly all the women, married and unmarried, to make the clothes and get the meals from materials which the men brought into the farmhouse. Even the statesmen and political leaders were generally farmers or planters when at home, and left their wives in charge of the corn and cotton fields during their terms of office at Washington or the state capital. The Father of his Country was an excellent agriculturist, as his letters, notebooks and a visit to Mt. Vernon will prove. So were several of the other early Presidents.

Occupations
of a Hundred
Years Ago

Those were days, of course, before the great forces of nature, such as the power that is in falling and boiling water, in coal and in electricity, had been harnessed to different kinds of machines, making these capable of doing rapidly, and very thoroughly, many kinds of work previously performed by hand at home. In the first years of this republic, most boys and girls looked forward to working on the farm. A few lads who early showed themselves brighter than the average in their school studies, were sent to college to become ministers, lawyers or physicians. Some who through their sharpness in exchanging pocket-knives and pet animals early displayed a well-developed trading instinct became merchants and spent their lives buying from neighboring farmers the few spare products of the farm to export to other countries, and selling in turn a few imported luxuries to those who raised more than their families consumed. Now and then a young fellow of marked mechanical ability left the farm to become a surveyor of farm and forest properties, or to work in one of the very simple factories of the time—in a saw mill, grist mill, woolen mill or glass works. In the seaboard towns a good many youths went to sea as sailors or fishermen. Girls who showed cleverness at books were sometimes educated to be teachers.

The Profes-
sions, Trading
and Mechanics
of the Past

Farm Work
Once Almost
Universal
Occupation

For the great majority of young people, however, down to about 1825 only one line of occupation was open. Whatever their natural bent may have been, and whatever they might, if they had been born in our day, have liked to do for a living, they were obliged to become farmers and farmers' wives—most of them of the thrifty, interested sort; some of them lazy, shiftless and improvident, ready on the slightest pretext to leave the hay or grain standing and go fishing. Not often was there a father as far-sighted and sympathetic as Captain Ebenezer Webster of New Hampshire, who, when his "lazy" boy, Daniel, complained that the scythe did not "hang" right, asked the lad how he would like it to "hang." The future orator, according to an oft-repeated anecdote, replied by hanging the implement across the bough of an apple-tree and leaving the hayfield. It was an exceptional father of the old days who would humor such a rebellion against farm work.

EFFECTS OF INVENTION ON WORK

Modern
Farming

Invention after invention, the chief of which have been described in the school histories, has come into common use since John Quincy Adams was President. The effect of these has been to make it no longer needful or profitable to do on the farm all or even most of the work connected with feeding and clothing the nation's families. Over modern railroads and steamship lines raw materials can be transported very cheaply to factories, manufactured by wonderful machinery and sold to the farmer at prices so low that he cannot afford to have the same things made at home.

The farmer, from the same causes, has more to sell than formerly. His power to produce has been greatly increased by the invention of different forms of agricultural machinery, such as chilled steel ploughs, harrows, mowing machines, reaping, binding and threshing machines, and steam tractors. One man with this new equip-

ment can properly cultivate several times as much land as his grandfather could. This means that he raises very much more than his household can consume. He has a surplus to sell. If, as in the old days, practically everybody went into farming we should hardly know what to do with all the crops. It is often regretted that so many young people go from the farms to the cities, and for many reasons it is desirable that all who have real taste for agriculture should stay in the country where life is believed to be more healthful and natural than in the crowded centres of population. Yet it should always be remembered that if ten men with agricultural machinery can do to-day what once a hundred men did by hand, the other ninety must, perforce, look around for something else to do. It is the release of a large proportion of the population from agricultural work that has made possible the present great variety of occupations.

**Exodus From
the Farms**

WOMEN AT WORK

It would be a mistake to suppose that women never worked until about 1830 when they began in great numbers to seek employment in the newly established cotton and woolen factories of New England. From the dawn of history woman has always been a worker. Her lot, whether married or single, has been to make family life comfortable, to "pick up" after the men folk, to care for the children and generally to be busy from sunrise far into the night. It is, however, a comparatively modern phenomenon to find millions of women earning their living outside the home. Why women should have been led to do this is easily seen if you grasp the effect of labor-saving machines. The same causes that have made it unnecessary to keep so many men at work on the farms have taken many tasks out of the hands of the farmer's wife and her helpers and have given this work over to managers of factories who can perform it much faster and more cheaply.

**The Effect of
Labor-saving
Machines**

The Days of
the Spinning
Wheel

The spinning wheel and hand loom stood a century ago in nearly every home in the land. The women members of the household, as part of their regular occupations, took wool from the backs of sheep raised on the place, wove it into cloth, dyed it with simple vegetable dyes and from it fashioned the family's clothing. It was sound, well made cloth—in some respects a better fabric than most that is now sold in the shops—but its manufacture consumed nearly all the spare time of nearly all the women in the country; and even so they were often helped out in the harder parts of the work by men weavers who were boarded from house to house, as seamstresses still are.

An Irish
Weaver
of 1830

One of the most picturesque occupations, indeed, of early American life was that of these Scottish and Irish loom operators who made the wonderful coverlets and other household textiles that are now treasured by collectors. They crossed the Appalachian Mountains soon after the first settlers, and some of their best weaving was done in what is now the Middle West and Central South. Redolent of the spirit of those days is the following description, quoted by Eliza Calvert Hall in her delightful "Book of Hand-Woven Coverlets": "As early as 1830 there came to this neighborhood (Glasgow, Kentucky) an Irish weaver, Sam Gamble by name, who regularly made the rounds, weaving cloth for the different families who lived near by, and tarrying longest where the hospitality of John Barleycorn offered the best inducement. At the 'Old Place,' the home of Mr. Alanson Trigg, he found comfort for both body and soul in the fine old peach brandy distilled from the fruit of the orchard and stored away in pantry and cellar, and here he would linger for months plying his trade with the assistance of 'Aunt Rose', the 'Black Mammy', who spun the thread, filled the bobbins, and threaded the sley. The woolen woof was made from the fleece of sheep that grazed on the neighboring hillside, and probably



PRIMITIVE TEXTILE INDUSTRY.

the cotton thread, too, was a home product. The music of Sam Gamble's shuttle delighted the whole family, for to the negroes it meant new clothes at Christmas time; to the mistress it meant fleecy blankets and gay coverlets, and all these were colored with dyes made from barks and roots of trees that grew around the 'Old Place.' Sam Gamble's Irish wit and good-nature made him a welcome guest wherever he went, but he left the neighborhood in 1844 and was never seen there again."

To-day in humming factories fibres of wool, linen, cotton, silk, jute and cellulose are twisted into thread and woven into cloth that is so cheap everybody buys it. Homespun clothing in most places is a curiosity. The farmer's wife no longer finds it worth while to spin and weave. Knitting, too, is an ancient domestic occupation that has practically disappeared. In one knitting mill of to-day are 800 busy little machines, which in a day do as much work as 2,500,000 knitting women could accomplish in the same time.

Homespun
Clothing Now
a Curiosity

The farmer's wife still, as a rule, prepares the family's food, but often with much help in the way of canned and preserved goods from the store. Many of us have been on farms where the milk is sold in bulk to the creamery while the household uses condensed milk or evaporated cream from the city. Such habits grow out of a natural wish to save time, trouble and expense.

The cutting down of the amount of necessary work to be done in rural neighborhoods means fewer women there. The wives remain, of course, but the unmarried women, who used to be very numerous in such households, seek employment in the factories and stores of nearby cities. Millions of women, daughters or grand-daughters of farmers, are at this moment engaged in all sorts of mercantile occupations.

Women Resort
to Mercantile
Occupations

The fact is, for both men and women, the number of possible occupations is continually increasing. Every

new industry, every invention brings very many more opportunities for work.

CHARACTER OF OCCUPATIONAL CHANGES

While new lines of work are continually being created the old industries undergo many changes. One readily thinks of examples of this tendency. Shipbuilding was formerly a species of carpentry and employed skilled woodworkers. Now it consists in large part of riveting iron plates together. The cobbler used to make and mend boots and shoes. Now he merely mends shoes. The old-time farmer, to be successful, needed only to be industrious and resourceful. These virtues are still very valuable on the farm, but the modern farmer, with his barn and garage full of complicated machines, needs also to be a first-class mechanic. In many mechanical trades the effect of inventions has been to put the worker into a position where he watches rather than works. He is paid not so much for exerting himself as for keeping his eyes constantly on the machine. In many mercantile pursuits the natural trader is less prominent than he was of yore, for he has given way to the far-sighted person who does not dicker with his customers, but who uses his imagination to foresee their needs and to supply these before a competitor has even thought of doing so. The present-day lawyer, unlike the legal practitioner of half a century ago, may have very little talent for talking on his feet; he is paid for keeping his clients away from the courts. These and many other changes in the nature of occupations are in progress all the time. They make it desirable that a young person should look ahead and consider not only what is demanded in a business or profession to-day but what is likely to be required in it ten or twenty years hence.

The New and
the Old

Anticipate
Changes in
Your Business
or Profession

In connection with these incessant changes in the character of occupations one general rule should be noticed: the finer, higher types of labor are continually coming

to the front, while the low-grade and debasing kinds of toil tend to drop out. It is a higher pursuit, one demanding more intelligence and training, to operate a steam shovel than to dig with a hand shovel in a ditch. Many of these great machines now in the hands of contractors scoop up mud and clay by the cubic yard and ton. Their success makes it fairly certain that while much hand digging will be done for a long time to come the great excavating operations of the future will all be accomplished by a few engineers and not by an army of shovelers. This has been called the age of specialists. The observation is true enough, but it does not tell the whole story. Men and women are specializing more and more in the finer, more delicate operations, not simply because these are pleasanter and more interesting but because machines are performing more and more of the rough, crude forms of labor.

**Rough Labor
Largely Done
Now by
Machines**

It should also be noted that what are called the socially useful occupations—those that benefit everybody, including the person who gets the money for doing the work—are the ones which offer the best opportunities. Gradually, in some places only very gradually, useless and vicious types of toil are losing their standing and former respectability. Half a century ago the management of lotteries was still regarded in some parts of the United States as a proper pursuit for a young man to enter. In the same way in Europe the tending of faro and roulette tables was one of the ordinary occupations. Although the gambling instinct is strong among all peoples, civilized and uncivilized, the gambler's career, thanks to laws regulating such activities and to the firmer attitude of good people toward them, no longer offers the inducements it once did. Mankind, in fact, is slowly outgrowing its vices. Figures of production show that while a vast amount of liquor is made the amount consumed per person is decreasing. That means less work and in time no work, for saloonkeepers and bartenders. But many

**Useless and
Vicious Labor
Losing Favor**

silly and worthless occupations remain. Attempts are sometimes made to justify these because they "make work" or "put money into circulation." This argument, fortunately, is held less seriously than it was a few years ago. Most people now see that when a person is engaged in doing some foolishly useless thing he is thereby prevented from doing things which the world very much needs done. There is always enough of really beneficial work awaiting our hands and no excuse at all for any of us spending a lifetime

"Doing the needless things
That needless people do."

EFFICIENCY IN LABOR

In a family where all the members, young and old, co-operate in performing the various domestic tasks, and where no one shirks his part, the burden of work, even though there may be a very considerable amount of it, does not seem heavy. The mother probably takes the responsibility of directing the others as well as of doing many things herself; but she is not continually overworked, as she would be if the father felt it to be outside a man's sphere to be helpful at home, and if the sons and daughters were allowed to make their studies and their pleasures an excuse for never turning a hand toward helping with the housework. What is true of family life is true of society as a whole. The world's work is only just beginning to be as carefully organized as is the running of a well-ordered home. Young people sometimes wonder why so much is said nowadays about efficiency. They may wonder less when they get into actual business.

Out of every hundred people forty are either too young or too old to work for a living. That leaves sixty men and women who should be employed at providing shelter, food, clothing and service for themselves and those dependent on them. Most of these sixty, in this country

at least where we have only a very small leisure class, are engaged in work of some kind. If all of them were thoroughly efficient we should have a surprising abundance of the good things of life, for with the help of machinery and scientific methods there is almost no limit to man's ability to make and distribute the articles he needs. Careful observers, however, have estimated that out of this group of sixty persons not more than twenty can at present be called reasonably efficient. About twenty persons in a hundred, that is to say, might win a passing mark in efficiency if they were graded in this subject. Among the other forty there are a few born shirks whose only idea is to get by with as little effort as possible. Most of them, however, do their best, but because they are untaught and unskilled it is a poor best.

The Efficient
Twenty Per
Cent

The outcome is that the efficient twenty per cent are practically the only ones who get from the world what an energetic, ambitious person ought to hope to secure, and they are the only ones who do what every worker ought to be glad to do—their part in carrying the burden of the young, the aged and the helpless.

THREE HUNDRED PRINCIPAL OCCUPATIONS

The pursuits followed by people who work are divided by the makers of the United States census into "gainful" and "non-gainful." This distinction should not mislead anyone into thinking that wives and mothers, who as a rule receive no stated wage or salary, are not workers or producers. Among about three hundred principal occupations, theirs is by far the most important vocation of all, for on it depends the handing on of life from generation to generation. It will be well, therefore, in taking up the conditions and opportunities of various occupations in the chapters that follow, not to make too much account of the difference between gainful and non-gainful pursuits. We should also remember that a great deal of work never paid for in money is done by other persons

Importance of
So-called
Non-gainful
Pursuits

than wives and mothers. It is to the credit, for example, of human nature that many people who are not obliged by their situation in life to do anything productive, give freely of their time and strength to labor for which they receive no payment. Such labor, if intelligently performed, is valuable to society as well as to the persons engaged in it.

OPPORTUNITIES FOR MEN AND WOMEN

Of the sixty people in one hundred who are estimated to be of an age and strength to do productive work, one-half are men and one-half are women. The difference in sex makes a very considerable difference in their occupations. A boy has a much wider range of choice of endeavor than a girl has.

Of the thirty men, in the old days, as we have seen, nearly all would have been farmers or woodsmen. Almost all the thirty women would have done housework. Not more than twelve of the men are farmers to-day. The rest are found in others of three hundred or more chief occupations—in the professions, in trade, transportation and manufacturing, in various kinds of personal service, in government employment, and in the many forms of construction work.

Women very generally follow a natural instinct for home-making, many of them settling down to a life of wifehood and motherhood. It is not surprising, therefore, that twenty-three out of every thirty women find their place in the home. The other seven make up, in the aggregate, the host of female workers found in offices, factories and other establishments where work is done which formerly, if done at all, was performed in the farmhouse. The girl's opportunities are not so numerous as the boy's, but her list is rapidly increasing. For all young people there is enough in a survey of the field of work to stir the ambition and excite the desire to play a strong human being's part.

How Men
Workers Are
Distributed

How Women
Workers Are
Distributed

WORK FOR ALL CAPACITIES

One of the good things about the increase in the number of industries and occupations in such a country as ours is that suitable work may usually be found adapted to every physical and mental capacity. For any real talent that is offered some buyer can always be discovered. Even for the weak-minded and crippled occupations are provided. Visit an institution for the blind and you will be astonished to see the many ways these disabled workers have of making themselves useful and of earning at least a part of their livelihood. In a certain farm colony for the insane eighty-five out of one hundred inmates do voluntary work around the place, and they make a naturally barren tract of land bloom with beauty. The unfortunate victim of mental delusions, often imagining himself to be Napoleon Bonaparte or Julius Caesar or some other famous personage, is generally disdainful of humble labor when he first arrives at the institution; but seeing the others busy at hoeing or chopping or gardening he by and by tries his hand at something, finds that it feels good to get useful work done and thereafter benefits greatly from the exercise. In a private institution a physician some years ago devised the now famous "work cure" for nervous patients. He had noticed that the "rest cure" did these people no good. While lounging around they thought continually of all their troubles and the bad qualities of all their relatives. So this wise specialist put them at work making brick and tiles, spinning and weaving, doing carpentry and wood carving, and to his delight he saw that as the habit of doing good honest work was formed, the nervousness steadily disappeared.

Blind, Crippled
and Insane
Workers

"Work Cure"
for Nervous-
ness

In the world of sane normal people there are more things waiting to be done than there are people with the ability to do them. It is encouraging, moreover, to realize how with guidance young men and young women may make their way into vocations for which they are

Two Million
New Workers
Each Year

naturally fitted. The work awaits them if they have the knowledge and initiative to go directly to it and not to waste years in aimlessly trying first one thing and then another. As the schools each year close their doors upon two million or more boys and girls who must go forth to earn a living, their elders often gasp and wonder what all these graduates can find to do. Yet somehow the world that eats and drinks and wears clothes and lives in houses gives employment to the youngsters as soon as they are able to do anything that is even half-way useful.

"I want to make money quick, and so I am going to learn to run an aeroplane and go in for prizes at the aviation meets," said a young lad at the dinner table. His mother gasped with fear, for her heart had always been in her mouth since as a little fellow he had shown marked mechanical ability in mastering the details of automobiling. Even the father was somewhat disturbed, for this boy had a way of going ahead with what he planned to do.

"Have you thought of the dangers, the large number of deaths in this work?" was a natural question.

"Oh, you know that when a man's time comes he will die, and not before," was the careless reply.

Household
Discussion of
Children's
Careers

Whether the father's talk that followed did any good or not cannot be recorded here. He at least tried to combat the silly notion which many young people acquire from reading or the conversation of uninformed elders, to the effect that fate and not our own conduct determines the length and character of our lives. There was also a description of the tragedy that would come through the needless death of an only son, and reference was made to proved facts and figures about the chances of accidents in various callings. The boy was strongly urged to stay in the automobile repair business in which he had already made a good start and to leave aeroplaning alone.

Just such household discussion as this frequently arises and decides the career of a son or daughter. The unfor-

fortunate thing is that accurate information about working conditions and prospects is not always available to the family.

Many questions arise naturally in the mind of an intelligent boy or girl in looking over the occupations that might be chosen. The answers to some of these will be found in the chapters to follow. A few of the very general interrogatories, such as are often discussed in the family circle, may be taken up here.

Answering the
General
Interrogatories

SONS AND THEIR FATHERS' BUSINESS

Whether it is best to follow one's father's vocation is a query that frequently comes up for consideration. In some countries there would be no room for argument on this subject. In the older civilizations it is usually expected that the son of a blacksmith will be a blacksmith, just as regularly as princes and princesses become kings and queens. In this country, on the contrary, each young person is encouraged to strike out for himself. Sometimes this idea of independence is perhaps carried too far. It amounts to discouraging young people from even thinking of the calling in which a parent has met with more or less success. It is a fact that we inherit aptitudes as well as physical resemblances and that, other things being equal, it is always well for prospective workers to inquire with especial care into the conditions of the father's profession or business. Both parents and children should, of course, avoid being influenced too much by the habit we nearly all have of talking about our own particular work in life as if it were the most unpleasant and unsatisfactory in the world.

Inheriting
Aptitude for
Father's
Business

WHERE ONE SHOULD WORK

Whether it is best to secure work at or near home or to go to a greater distance can be answered in detail only by one who knows the merits of the particular case.

In the United States if a young man or young woman

Workers
Prefer to Stay
Near Home

goes from the country to a city it is usually to a city within a few hours' ride from home. If from one city to another it is likely to be a city in the same section. It has been asserted that four-fifths of American workers remain the greater part of their lives in the States in which they were born; nine-tenths in the same group of States. Whatever the precise proportion, observation shows us that most of the graduates of a high school settle within a few hundred miles of the town in which they were educated.

A Drawback
to American
Commerce

This desire of boys and girls to stay near the home of their childhood is, of course, very natural and praiseworthy. Often it is inspired by unwillingness to go too far from parents who may need help. It at the same time has an effect somewhat to limit the possibilities of an individual's choice among occupations. If he is born in a State where most of the industries are agricultural, his home-keeping instinct may result in his being only an indifferent farmer, whereas, by following a natural bent for trade, he might have become a successful merchant in one of the large cities. Business men returning from travels in the Far East and South America often complain that one reason why American trade is extended slowly in these regions is because young Americans will not go out there to spend five or ten years. Young Germans and Englishmen do this as part of their commercial training and in so doing they help extend their country's commerce into the furthestmost corners of the earth.

Whether it is better to select an occupation in the country or in the city is frequently debated with interest in the American family. Usually it is a country lad or girl who wonders whether or not it will pay to go to the big town where so many young people of the neighborhood have made their way. Occasionally a city boy queries if he would not be happiest in the midst of God's sunshine and is inclined to learn farming or forestry or some other pursuit that will keep him in the woods and fields.

While this problem, like many others, can be settled only by considering all the particulars, it may be observed that the question whether one likes the country better than the city, or vice versa, becomes each year less important. In either one you can now get more and more of the benefits and advantages of the other. The country home in these days of the telephone, rural free delivery, electric express and many other conveniences has facilities which until recently were peculiar to the city. The country villages, furthermore, have clubs, lodges, lectures, motion picture houses and other forms of amusement and entertainment. The cities, on the other hand, through the improvement of housing and the upbuilding of attractive suburbs and beautiful parks will some day offer to those who care for them many of the simple and health-giving pleasures of rural life. The city in fact has already, according to statisticians, gone ahead of the country as a healthful place of residence, so that urban children to-day often stand a better chance of growing up than country children.

Country
or City?

Natural liking, therefore, either for city or country need not interfere with the individual's choice of a vocation for which he has real taste and ability. If he has capacity for farming but enjoys the social events and entertainments that exist where a good many people live together, his best plan would be to work on a farm, market garden or nursery within easy reach, by train or trolley, of some good-sized city. This plan has an added advantage that such farms, if intelligently conducted, are about the most profitable there are. If, on the other hand, a person has marked capacity for a calling that can be carried on only in the city, it is always possible to live just out of town, where one can have a garden and chickens, and still report at work each morning before the whistle blows.

Advantages
of Both City
and Country

The same statement, that one should think first of the advantages of the work itself and then choose conditions

of living according to circumstances, applies to the choice between a large and small city. A change from one to another here should be made only for good and sufficient reasons. A place of fifty thousand people is pretty sure to furnish all the social and pleasurable opportunities that any right-minded person will care to avail himself of. There is no sense in leaving it for New York or Chicago unless the vocational opening in the larger city is known to be greatly superior.

SHOULD WORK BE OUTSIDE OR INSIDE?

A Question of Health

Whether to choose an outdoor or an indoor occupation rightly concerns many young people. Often a choice must be based on grounds of health. Some boys and girls are of such a bodily tendency that they clearly ought to live as much as possible in the open air. Most Americans have awakened to the truth that consumption and other diseases are due in large part to habits of living and working in enclosed spaces where there is an insufficient supply of fresh air. The gospel of right living is already working wonders toward improving the health of the nation, and it is a good sign that young men and women are becoming more particular as to the places in which they are willing to work. Those, certainly, who have ever shown, or whose parents have shown, any tendency toward tuberculosis ought to be especially careful. Good health is always more valuable than a large income.

Keeping Well While Working Inside

It may be said, however, that conditions of indoor work are steadily improving in this country, and that a person not naturally robust may often, by taking good care as to his eating and sleeping, engage in an inside occupation and still retain his health. Many factories and business offices are light, airy and well ventilated. The hours are not usually so long or the labor so exhausting as many kinds of outside work. The worker in such a position may, if he understands the importance of living aright, get abundance of fresh air during eight or nine hours of

refreshing sleep, and by paying proper attention to the equally essential matters of diet and personal hygiene, can do office or factory work with less reason for dreading the white plague than if engaged in some nerve-racking, underpaid outside labor with long hours.

MENTAL WORK OR MANUAL WORK?

Whether brain work or muscle work is better for one is another of the questions that arise for settlement.

The ideal occupation involves about an equal amount of the two kinds of labor. It adds to health and sanity to be required each day to do a certain amount of hard thinking. The health of the human organism, on the other hand, demands a good deal of physical exercise.

**The Ideal
Occupation**

Most vocations, unfortunately, do not combine the two types of labor in anything like equal proportions. In some the worker uses his muscles much, his head very little. In others the work keeps him sitting all day long with plenty of training of his mental capacities but with no opportunity for doing anything that makes the blood circulate fast. The latter kind of work is in constantly increasing demand, while physical power, in an age of machinery, becomes less and less of a necessity. There are still many occupations, to be sure, in which a strapping young fellow whose mental equipment is not his strong point, may find employment. Freight and baggage are handled and moving vans are loaded by men whose muscular strength is their chief asset. Digging machinery has not yet taken the place of all the army of shovelers who work in ditches and subways. Brain work, however, including the supervision of machines, which exacts more thought than muscle, commands as a rule the best pay. Most young people, therefore, expect to follow some pursuit in which they cannot get the all-round physical development that fell to the lot of the old-fashioned farmer or seaman. They must prepare to secure the exercise they need elsewhere than at work.

**Preponderance
of Brain Work
To-day**

Supposed
Ill Effects of
Brain Work

It should be noted that many of the ill effects popularly attributed to brain labor are not really due to wear and tear on that organ of thought and the nervous system with which it is connected, but simply to bad habits of sitting, standing, walking, eating and sleeping which cause a mental weariness and nervous exhaustion believed by the victim to be a result of "hard work." An Austrian physician has found that people who sit with their legs crossed tire much more quickly than others. Much of the fatigue that comes from walking or standing on the feet is due to the fact that few people step with a perfectly straight foot, such as enables the Indian snow-shoer to go forty miles a day through the north woods; most of us toe out and a few of us toe in—both very bad habits. Most people, even in the country, either do not get enough fresh air or do not know how to breathe correctly when they are out in it. A storekeeper was found in his stuffy shop, heated to a temperature of eighty by an airtight stove. "My rheumatism has been very bad and I've had la grippe three times this winter," he said in reply to a question about his health. "I suppose it's the hard work as does it."

Right Mental
Habits

The mental habits, too, must be right if the brain worker is to be healthy. He must learn to think with steadiness and concentration. No reason appears why such a worker who takes good care of his mind while at work and of his body at all times should not be a sound, healthy human being.

Occupations of various kinds are considered in detail in the chapters that follow. Not every pursuit, of course, can be discussed, for the ways by which small numbers of people here and there manage to earn a living are almost without number. But an effort has been made to group some of the principal vocations and to show what experts who have studied them have found to be their requirements and opportunities.

CHAPTER VI

THE "LEARNED" PROFESSIONS



PROFESSION means, usually, a vocation which requires a liberal education and in which success depends more largely upon brain power than on skill of hand.

The "learned" professions, which our grandfathers regarded as the most honorable of pursuits, are the ministry, law and medicine. Art, literature and teaching have also for some time past been admitted to the rank of professions. More lately engineers—civil, mechanical, electrical, chemical—have very properly claimed to be professional men. To-day many workers in other lines in which great skill and intelligence must be developed by long training, seem to have just as good right to be considered as "professionals" as have the lawyers and doctors. An ordinary bookkeeper, for example, is hardly held to practice a profession. When, however, he passes a state examination in many subjects and becomes a chartered public accountant he has qualified himself to engage in expert work of a distinctly professional nature.

**Distinguishing
the Professions
From Other
Occupations**

The line between the professions and other occupations, in fact, is often hard to draw, and it is all the time becoming more uncertain and wavering. Vocations which were once so simple and mechanical that anyone could master them in a short time now demand years of schooling. Specialists in these callings, commanding high salaries or large fees, feel that their employment is in the same class with that of the older professions. Then again the distinction between business and the professions is breaking down. A merchant, according to the old idea, bought goods for the lowest prices possible and sold them

**A Line Hard
to Draw**

Two Different
Ideas of Trade

at the highest prices he could get the public to pay. He was in business to make money; if anybody thought he was making too much, the seller took refuge behind an ancient Latin precept, *caveat emptor*, the sense of which is that the buyer must look out not to be cheated. In lands where this idea of trade still prevails one must haggle over every purchase; no merchant ever thinks of putting one fair price on each article for sale and of sticking to that price. In Anglo-Saxon countries, on the contrary, many merchants regard their business as one of getting goods as cheaply and conveniently as possible from the manufacturer's warehouse to the customer's home. One enters such a store to buy a service, not to dicker over prices. The merchant has become a kind of commercial engineer. He is thus often very much of a professional man.

Some of the callings which everybody recognizes as professional will be considered in this chapter and the two which follow. It should not, however, be supposed that these are all the professions there are, or that they are in any way to be set apart as higher and more respectable than all other pursuits. Success in any one of them requires brains. But to manage a department in a factory or store also needs great exercise of intelligence.

WHO ARE FIT FOR THE PROFESSIONAL LIFE?

Needed: A
Sound Body,
a Wide-awake
Mind

Boys and girls who are naturally bright in their studies are, generally speaking, the ones who should be advised to consider the professions. If a pupil who is in ordinarily good health fails to make high enough marks to place him in the first third of his class, it is probable that throughout a professional career he would be outclassed by keener intellects. To this rule there may be exceptions. Occasionally an otherwise dull student is peculiarly gifted in one direction, as in mathematics or music or drawing. Where such talent exists it probably should be specially trained. In general, however, the profes-

sions are alike in demanding wide-awake minds. A sound body is, of course, an asset in any life-work. The ideal professional worker has a good body and an exceptionally well-developed mind.

Many unfit persons enter the professions, unfortunately for themselves and for the community. These are usually either the naturally lazy, who have a mistaken notion that professional life is easier than any other, or the children of families in which it is thought to be more "genteel" to follow a profession than to engage in trade, agriculture or mechanics. Much harm is done by these wrong ideas which we have inherited from days when the world was divided upon false principles into distinct social classes. It is really a great hardship for a boy who might have made an excellent machinist to be turned into a third-rate lawyer, for no other reason than because his father is an attorney and his grandfather a judge. A girl who has the buying and selling instinct, and who would have been a success as buyer in a department store, is often induced to take up teaching, for which she has no aptitude, because her family regard it as more lady-like to instruct children than to begin life by passing goods across a counter. As for the indolent, these are better off in routine positions where they are under someone's supervision than in professional positions where they are masters of their own time.

The Unfit in
the Professions

ARE THE PROFESSIONS OVERCROWDED?

It is always well to remember in thinking of the professions that they offer chances to only a comparatively few of the many young people who each year go to work. The number of professional workers in 1910 was found to be less than two million, hardly one person in fifty in the United States. A majority of our men and women must do work that is directly connected with getting products out of the earth or distributing these among the people who can use them.

Number of
Professional
Workers

Some of the professions, as things are, are believed to be greatly overcrowded. It has been shown that the number of lawyers has grown faster than the number of people. In 1890 the census gave one lawyer to eight hundred persons; in 1910, one lawyer for each five hundred persons. In large cities we find one doctor to about four hundred people; taking the country as a whole, about one to six hundred people. No other nation supports so many of these professional workers. Even in the newer professions, such as those connected with engineering, it is observed that young graduates are not snapped up at high salaries quite so eagerly as they were ten or fifteen years ago. In practically every profession the young man or young woman of to-day must face very sharp competition, and it does not appear that circumstances will grow any easier for the moderately clever or the half-trained in the near future.

The ambition, however, of the mentally gifted ought not to be dampened by statements about the overcrowding of the professions. There is a less pessimistic way of looking at this subject. While undoubtedly the professions are filled with people who ought never to have entered them, they offer each year greater opportunities to trained talent and persistence. There are too many badly educated, dull-witted doctors; but it is by no means certain that we have too many good reliable physicians and surgeons. One reason why we Americans support more doctors than some other nations is because we can afford more and better medical service—because our farmers with their modern machinery and methods, and our merchants and mechanics with their relatively high incomes, feel that they are able to call in the doctor for sickness instead of trusting to some home remedy or a patent medicine. As machinery becomes more efficient and earnings of workers are greater, our people have more and more money to spend in keeping their persons and their teeth in condition, in hiring architects to design their

Sharp Competition in Every Profession

Plenty of Room at the Top

buildings, and lawyers to look after their property rights. Thus there is an ever-increasing amount of business for professional people, of which those who are able, alert and well-educated will certainly get their share.

Let us make this statement even stronger for the encouragement of the young person who hesitates whether to aim high or to be content with less education than some of his fellows of no greater natural ability will receive for the reason that their family circumstances are better. There never has been a time in history when almost any one of the professions has been so full of promise to the aspiring and capable as to-day. At no time has it ever been so well worth while for the individual and for members of his family to make sacrifices for the sake of entering him in the professional classes—always provided, of course, that the native talent is there. The world has never before been so big with opportunities for the highly trained. The law gives employment to a vastly greater variety of abilities than at any previous period, and the law school training has become admirable preparation for many kinds of business. Medicine has openings both for the quiet, studious man of scientific tastes and for the physician of organizing ability and social vision. The rewards of good writing, good drawing, good clay modeling, good designing are continually on the increase. Engineers are only beginning to perform their wonderful task of harnessing the forces of nature to do the work until now done by the hand of man.

**Professions
To-day Full
of Promise**

**Big Oppor-
tunities for
the Highly
Trained**

Therefore nothing is more foolish than to urge a boy or girl who has a legitimate ambition to enter a profession, to be content with some less intellectual occupation merely on the ground that the professions are overcrowded. Of course, there may be other good reasons for discouraging the youth. He may plainly overestimate his gifts in one direction while he as plainly does not appreciate what he might do in some other walk of life.

Overcrowding
Does Not
Concern the
Mentally Fit

Special family conditions may make it regrettable that he cannot be encouraged to do what otherwise would be proper for him to attempt. It may be that just the same opportunities the aspirant seeks in a profession exacting long and expensive education can be realized by going into an allied occupation and taking advantage of opportunities to learn while working. These and other reasons may make it unwise, even for the first scholar of his class, to think of going on through college or the technical school. But he ought not to be kept from professional preparation merely by the fear that there is no room for him. Think what the world would have lost if Abraham Lincoln had said to himself as a very young man that there were too many lawyers in the country already and that he had better stick to the useful and sure job of splitting rails. It might have made a change in the clothes and other textiles of every civilized nation to-day if Richard Arkwright, an English barber in the eighteenth century, had argued that the land was already full of mechanics out of work and that he would be wiser to keep on shaving men's faces at a penny apiece instead of tinkering with the machine that later became the first power loom.

THE MINISTRY

Most Ancient
and Intellectual
Calling

The most ancient and honorable profession, in all probability, is the ministry. It is certainly one of the most intellectual of human callings—one in which the power to grasp and convey ideas is very important. Mankind has always been religious, and from the earliest times families have regarded themselves as honored when a son has decided to become a minister of religion. It is not otherwise to-day. Most parents rejoice when a favorite son enters the sacred calling.

It is so honorable, indeed, to have a son in the church that a boy of evidently spiritual nature is often under great pressure to embrace a profession which to-day needs not only goodness but energy, vigor, resourceful-

ness and organizing ability. The church faces competition of which it formerly had far less than now—occupations that take more and more of people's time and thought; entertainments on which they are tempted to spend their leisure hours and savings. To meet this competition, the minister should be a strong, human man, with a special gift for influencing men and women. In times past scholarship and eloquence in the delivery of a carefully prepared sermon constituted a man a great clergyman. Some congregations in some communities still desire such pastors; but the number of these places grows fewer. The studious, retiring, unworldly youth should not, as a rule, think of this calling. If a boy has never mixed well with his fellows on the playground he will probably be weak when it comes to managing men's clubs, mission committees, social settlements and the various other complex features of a modern church organization.

Modern
Clergyman
Must Be Good
"Mixer" and
Organizer

To the boy of good character who combines in his makeup something of the prophet and something of the present day administrator the church extends a career that is well worth considering. The financial rewards will not be large, but this is by its nature the most uncommercial of callings. Ten thousand dollars a year is about the biggest salary the most successful minister of a large city church can hope to receive, and his family will be expected to live on that in the style of people whose incomes are several times larger. In a city of a hundred thousand the ministerial salaries will range from about \$4,000 downward—mostly downward. In the country they are usually very small indeed. In a number of religious bodies, however, there is a movement to increase salaries and to give the clergy the benefit of a system of old age pensions. To the competent the calling offers a fair living and a very great field of usefulness.

Financial
Rewards

Education for the ministry is financially easier than for most of the professions. The colleges and theological

**Education
for the
Ministry**

schools often have large funds the income of which is available for young men who expect to enter the ministry. The theological student frequently finds that well-to-do people of his faith are quick to help him achieve his ambition. As in most professions it is sound advice to let the preparation be as broad and thorough as possible. The candidate for the ministry should go through college, a good theological seminary and should then serve an apprenticeship in city missionary work, social settlement work or some similar activity. One of the major problems of the church is how to meet the needs of the wage earners in large cities; and this is a problem that may well engage the attention of strong, serious young men. The church to-day may have fewer great preachers like Henry Ward Beecher, William Ellery Channing or Phillips Brooks, but there are earnest, able ministers living among the poorest people in New York, Chicago and elsewhere who have achieved an understanding of the real problem of existence which the old-fashioned popular clergyman never had.

**Women in the
Ministry**

To women the ministry has been far less attractive than to men. There are said to be only about three thousand women preachers out of a total of about ninety thousand ministers of religion in the United States.

WHAT THE LAW OFFERS

The law, of all professions, needs more workers of the right type than it now gets, and fewer of the type who cannot even by courtesy be called useful citizens.

When Peter the Great of Russia was in London he pointed to some English barristers, wearing their wigs and gowns, and asked: "Who are those men?" "Lawyers," was the reply. "Lawyers!" exclaimed the monarch. "What is the use of so many? I have only two in my whole empire, and I mean to hang one of them as soon as I return."

But, whatever its defects, the law is a great social in-

strument, a complicated piece of machinery, by which men maintain order and justice in the world. If one had an expensive, delicate machine for producing a substance called justice one would want to be sure that the operators were highly skilled and thoroughly well meaning. That is precisely the situation with the law to-day.

As the law is one of the greatest of human institutions, the good lawyer is one of the most useful servants of his fellow men. It is quite natural that keen, sharp-witted lads, talking over their futures on the playground, should often agree that the best thing for any of them to do is to study law. Not all of them, to be sure, even if they follow their programme, will practice law in the courts or look after the legal matters of other people's estates. Some of them will take their knowledge of legal principles into business, the management of public service companies or into governmental work.

**The Law Needs
Gifted and
Skilled Men**

The occupations into which a legally trained person may fit are, in fact, varied. The young law school graduate may find himself in courtroom work, becoming a trial lawyer, or in political life where the attorney's equipment is particularly useful. If he is quiet and studious, with a retentive memory, he will fit into a law office of the modern type where clients' affairs are so managed that they never come to court at all. If his talent is for executive work he is likely to rise to be manager or senior partner of a firm employing a small army of young lawyers and stenographers. If he has selling ability he will connect himself with the legal department of a mercantile enterprise and perhaps direct its whole selling policy. If he has a keen sense of right and wrong and a desire to serve the public he will be content with a judge's modest salary and a very honorable position in society. If he burns to right the wrongs of the weak and oppressed he can usually make a modest living from practice among the humble and still keep himself free to assail interests which he believes to be corrupt and

**Many Openings
for the Law-
trained Man**

oppressive. Commerce and industry depend so largely on the law that in very many positions of trust and responsibility a person with a legal education has, other things being equal, a very great advantage over all others.

In theory, therefore, it is only a dull or dishonest boy who should be positively dissuaded from an ambition to study law. But in reality a more than ordinarily good mind and a high personal character are necessary for genuine success in this profession. Slow-witted, sluggish men sometimes by hard work pass their bar examinations and get into practice, but the odds are strongly against their doing well. The law's greatest danger, however, is from the bright lad who has a crooked streak in his disposition. This boy learns the game of law without mastering its principles. He becomes the kind of lawyer who is not so anxious to have justice done as to win all his cases.

Even with the best natural gifts it becomes each year more important that a boy who intends to study law should be reasonably sure either of the means or the personal energy to prepare himself properly for his profession. The days have passed when it was enough for a start to read law for a few months in somebody's law office. As is stated in an announcement from the law department of the University of Texas: "The best lawyer has a larger influence and greater income than ever before, but those who through lack of training come to the bar to meet the competition of better equipped men make pitiful failures."

There is a very good reason why practically all legal experts advise young men to get the benefits of a college course as part of their preparation for the law. In almost every branch of legal practice a lawyer must be equipped with two kinds of knowledge: He should know the law thoroughly and he should know a little something about everything else in the world. Two or three years in the law school, followed by a life-time spent in a law

**The Law's
Greatest
Danger**

**Education of
the Lawyer**

office, will give the specialist's understanding of the law. But it is very essential, while one is young and the memory retentive, to gain as much information as possible on the many subjects that make up a general college course. At this period of life the individual acquires the habits of the scholar which, in some degree, every lawyer should have. The statesman, Charles Sumner, who was learned in law, once wrote: "A lawyer must know everything. He must know law, history, philosophy, human nature." Why this is so will be readily understood by anyone who has frequently been at court. A lawyer to-day will be heard defending a case in which he must explain the intricate points of bookkeeping. To-morrow the same man may be engaged on a murder trial, cross-examining physicians and chemists whose special terms he must understand. Next day his success may depend on his being familiar with the details of banking. On these and many other subjects he has little time to read up between cases. He is sure to be helped wonderfully by having a well-stored mind and a library.

**Necessity of a
Well-stored
Mind**

Lawyers are grouped into two general classes: those who practice in the courts, or "trial lawyers," and those who give their time to consultation, research, or reports, or "office lawyers." In England the two classes are entirely distinct. They are, in fact, separate professions. In this country a man may be both. The lawyer in a country town looks after the property of clients who have no intention of going to court and at the same time he takes cases which he must plead before judge and jury. In our larger cities the tendency is for the lawyer to specialize either in some type of trial work or in some branch of office law.

**Two Classes
of Lawyers**

The qualifications of the trial lawyer are quite different from those of the office lawyer. The former should be a good speaker, ready, resourceful, aggressive, of attractive personality. The boy who is a good, all-round student, but better in recitation than in written examina-

**Qualifications
of the Would-
be Lawyer**

tions, might be expected to make a trial lawyer. The office attorney must be thorough, painstaking, capable of investigating a subject from every conceivable point of view. If in drawing up a paper he makes a mistake in the choice of a single word his error may cost his client thousands of dollars. Bad advice given to a worried business man may lead to bankruptcy. The office lawyer will be called upon to straighten out every kind of tangled situation. He may for a time have to run a business of which men who have been in it all their lives have admittedly made a failure. To render these and many other services, he will need a cool head, ability to think straight to the point, and live interest in the client's welfare. It is not necessary that he should be a public speaker. He may almost never see the inside of a courtroom.

**The Pathway
to Success
in the Law**

A young lawyer, however brilliant, must expect to be a little slow in acquiring a good practice and large income. After he has passed his bar examination he may often obtain a place, at what amounts to apprentice's wages, in a large law office. Remaining there and showing ability, he will in course of time be made a member of the firm. If he hangs out his own shingle, as the phrase is, there will be perhaps weary months of waiting for the first client. A lawyer is forbidden by the ethics of his profession to advertise his services. A resourceful young man, however, by taking active part in the affairs of the community in which he lives, increases the chances that someone will bring business to his office. It is often possible for a young attorney, while waiting for a better paying business, to collect bills for merchants, doctors and dentists on a percentage basis. This work not only gives him a start but equips him with a knowledge of other people's circumstances which later may be valuable.

Once clients have begun to come and have gone away satisfied, the young attorney need worry about very little except living up to the highest standards of personal efficiency and professional honor. As he gains a repu-

tation for possessing these, plenty of people will want to entrust their rights and fortunes to his care. The calling has peculiar temptations. It is easy to charge a client for what one ought to have done rather than for what one has done, and if one is inclined not to be quite "square," there may be whispers in the community of worse conduct than this.

An honorable young lawyer who has reached his early thirties should find his time worth from \$5 to \$25 a day according to the place in which he lives and the kind of people among whom he practices. Leaders of the profession command very large yearly incomes, running up to \$100,000 or more, but these instances are, of course, exceptional. To average \$10,000 a year in a city of a hundred thousand people is to be a very successful attorney. One frequently reads in the newspapers statements to the effect that the average annual income of lawyers in New York City or Chicago or Boston is very small—perhaps not more than \$600. Granting that this figure is fairly accurate, remember that the profession is lamentably overcrowded with the incompetent and ill-trained.

Remunerations
of the Law

A few women become lawyers. They now number about one per cent of the total number. They have an important place in the profession, especially as advisers for women and children. A possible field for women which is only beginning to be developed is that of management of the law office—an ideal position for a stenographer who has studied law or a woman law student who can direct a corps of stenographers.

Women in
the Law

The legal profession as a whole is likely to improve gradually in opportunities for genuine service. The law is being modernized and made more nearly to fit the needs of people of to-day instead of the people of several centuries ago for whom its principles were first devised. These changes mean more and more chances, as advisers, advocates and judges, for real men and women of live intellect and right purpose in life.

TEACHERS AND TEACHING

**Qualifications
of the Successful
Teacher**

A good teacher has a mind very similar to that of either a good minister or a good lawyer. His intellect must be sharp, clear and wide-awake. He should, at the same time, be sympathetic and patient with the efforts of the slow and timid. An instructor is, by nature and training, a master of words, of carefully detailed explanation. It often happens that for the teaching of a specialty it is necessary to secure the services of a person who has great skill in doing things but little or no gift for telling about them. Such a teacher is rarely an unqualified success; those pupils who have natural aptitude may learn much from him, but his instruction will go over the heads of the majority. The real test of teaching is to secure progress from the apparently unteachable.

**An Ideal
Teacher**

The gift of leading others to exert themselves seems almost miraculous as the born teacher exercises it. Successful teaching does not consist in much talking, in telling things. The poorer the teacher the more elaborate his explanations, as a rule. Great teaching consists in somehow inspiring young people to find out for themselves. Louis Agassiz, the naturalist, trained hundreds of young men who became famous scientists. Yet his method was to leave them alone for days to learn what they could from objects he had turned over to them. One of his pupils recalls his first lessons with Agassiz. Giving the lad a few clam shells, the naturalist told him to go to his room and study them. That was all. No books were set before him, no references given to look up. The youth for two days stared at the shells in blank despair and felt that he had been the victim of a practical joke. Then suddenly it came to him that there must be some cause for their shape, for the manner in which one shell hinges upon another. He began to reason about the clam, and upon the few crude facts which he thought out from observation of those shells he laid the foundation of a scientific career. The chief demand in teaching of all grades



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is for men and women who have something of this ability to set pupils at tasks which will stimulate their imagination and reasoning power.

The profession of teaching offers a livelihood to a very great army of people, of whom at least three-fourths are women. It is frequently regretted that more men are not found in the calling. The explanation of their absence, of course, is that brilliant, energetic young men usually feel that the chances of financial success are greater elsewhere. Some men, nevertheless, who teach for a time "go farther to fare worse," for although the money prizes in teaching are few there are many positions that yield a better income than the person who is not a born money-getter can hope to gain in commercial business.

Three-fourths
of All Teachers
Women

No young person of either sex, the plain truth is, should be deterred from teaching by the notion that it is a calling in which a sensible, well-equipped individual will be obliged to sacrifice his future on account of his love of the work. He will probably not get rich from teaching, but salaried workers rarely gain wealth in any occupation. The work of teaching is hard and wearing, but the hours are shorter and the vacations longer than those enjoyed by other workers whose labor is just as arduous. The American public has twenty million or more children to be taught, and it pays moderate salaries to those who have been selected as competent to do the teaching. This last statement is especially true of men teachers. Because there has been some overcrowding of the profession by women, and because women in nearly all lines have been paid lower salaries than men for the same work, it often happens that a really able woman teacher has a ridiculously small income.

Financial
Outlook in
Teaching

There are four principal teaching positions of high responsibility and good salary toward which an ambitious young man may aim: college or university professorships, high school or academy principalships, grammar or

**Four Principal
Teaching
Positions**

“graded” school principalships, and superintendencies of city and county schools. Besides these there are a few specialties, such as instructorships and supervisorships in subjects like music, drawing, physical training and industrial art, some of which pay large enough salaries to attract able men.

**A College
Professorship**

To become a college professor, a young man must have had a college education followed by two or three years of special study or research, either in this country or abroad. He may then become connected with one of the larger universities as assistant at a very small salary—probably not more than \$250 the first year. If successful in this trying-out, he is made instructor at about \$1,000–1,200. By the time he is thirty he should be assistant professor at \$2,000–2,500, and between the ages of thirty-five and forty he is likely to be elected full professor on a salary that may reach \$4,000 or \$5,000. In the smaller colleges, situated in country towns where the cost of living is lower, the salaries are smaller than at the great universities. Three thousand dollars is a fair salary for a professor in such an institution. The college teacher has a long summer vacation, usually of three months, in which it is possible to do productive work. Many professors add materially to their incomes by writing textbooks. Others earn fees through lecturing or, in the case of scientific men, by serving as consulting experts.

High schools, preparatory schools and academies usually employ a man as principal and both men and women as assistants. A young man who has made a good record as a student in college may often upon graduation get a position as assistant in one of these secondary schools. He will be paid at the start from \$600 to \$1,200 and will be expected to prove his capacity for giving classroom instruction and maintaining discipline. His salary will be advanced at the rate, probably, of \$100 a year up to a maximum paid for this kind of teaching. If the young instructor has ambition and a reasonable

amount of executive ability he will ordinarily become principal of a school similar in character to the one in which he has learned to teach. The salary he receives may vary from about \$1,000 in a country high school up to \$4,000-5,000 in very large city high schools or endowed academies. In a city of a hundred thousand a fair salary for the high school principal is \$2,500-3,000. The work is exacting and responsible, and little of the principal's time is devoted to classroom teaching. To direct a force of teachers requires ability very similar to that needed in managing a law office or a business office.

Position as
High School
Principal

Superintendency of city and county schools is really a distinct profession. The person chosen to direct all the schools of a district has usually had experience as principal of a high school or graded school. He should know about the art and science of teaching and at the same time be a good business man. He must be able through his teachers to impress his ideas on the children and young people and through his school board on the older people whose taxes support the schools. The position is one requiring a man of big mind and big heart. To such a person this profession is very stimulating and agreeable. The salary may range from not more than \$1,000 in a thinly populated district up to about \$10,000 in large cities. For a town of a hundred thousand a fair figure is \$3,500. This administrative work has of late years attracted some of the ablest of the men entering the teaching profession.

Superintend-
ency of City
and County
Schools

All the foregoing prizes of the educational world are, to a certain extent, open also to women teachers. The women's colleges have many professorships which are filled by women. Some high schools and many girls' boarding schools and seminaries have women principals. Women principals of graded schools are successful, and a few women have been chosen to be city, county and state superintendents of education.

The vast majority, however, of the girls who begin

**Advantages
of Teaching**

teaching will never be in charge of more than a single classroom. This important and very noble work is not always paid even a "living wage." In some places, indeed, the teachers receive less compensation than unskilled laborers. In cities with well-organized school systems they are paid about what they could earn in routine business positions, such as stenography and other clerical work. Their salaries, that is to say, run from \$500 to \$1,200 a year. Such teachers have an advantage over women in business in that they receive one long and frequent short vacations each year. Their old age is often provided for by a pension scheme. In some places they are protected from sudden or unjust discharge by a law requiring the superintendent or the school board to file charges in writing before dismissing a teacher. All told, the teachers' occupation, for one who enjoys directing the energy of young children, continues to be about the best available for the young woman of good mental attainments. She should, of course, properly prepare herself for her profession by attendance at college, and by taking a thorough course in a normal school or teachers' training school.

PHYSICIANS, SURGEONS, DENTISTS AND NURSES**Reasons for
Taking Up a
Medical
Profession**

Medicine is the science of preserving health and curing disease. The allied professions which are based on this science are among the noblest and most useful of human occupations. Diseases are more or less common throughout the animal kingdom. Mankind, during its upward progress, has fallen prey to many maladies which, if unchecked by medical science, might even sweep the race off the earth.

There are two chief reasons why a young man or young woman may logically wish to study for one of the medical professions: first is a desire to be helpful to one's fellow creatures; the other lies in an instinct to gratify a natural taste for scientific work. Most doctors and nurses

find both these motives present in their professional work.

How easily medicine trains martyrs is familiar to all who have ever seen the inside workings of a great hospital. One of the most spectacular cases of modern times was that of the American physicians, Carroll and Lazear, who at Havana bared their arms to the bite of mosquitoes that had just come from victims of yellow fever. Thus at the price of two lives was the truth established that this dreaded disease of the tropics is conveyed only by certain insects from one person to another and that by adequate screening and by treatment of mosquito breeding swamps the scourge can be kept down.

Medicine
Trains
Martyrs

It is somewhat hard to say which in a class of young people should be advised to study medicine. Because a small boy has always liked to "play doctor," it does not follow that he is a born physician. Because a girl at fourteen thinks it would be fine to devote her life to nursing the sick and suffering, it does not follow that she would later be able to keep her health and temper amidst the many unpleasant tasks and irritations of hospital service. There are, however, a few qualifications which may be stated as certainly required of those who expect to succeed in any of the medical callings.

One of these desirable characteristics is great physical endurance. Muscular strength may be useful, but the ability to stand long hours of service and frequent interruptions of sleep is absolutely essential. A boy or girl who has always tired easily and who is "no good" after a restless night, had probably better not try to be a doctor or nurse. Dentists, too, though their hours are more regular, must stand on their feet for long periods of the day performing very exacting and difficult work.

Great Physical
Endurance
Necessary

Surgeons and dentists should be excellent mechanics. Clumsiness with the knife may cost a patient his life. One of the most famous of American surgeons, Dr. Maurice Richardson, had hands so supple and delicate that artists

used to beg the privilege of drawing them. Such a practitioner has a sense of touch that is extraordinarily keen. Unless a lad has always been good at performing fine operations with tools he is unlikely to do well at surgery or dentistry.

Helpfulness
and Sympathy
Necessary

Natural helpfulness and sympathy are particularly valuable qualities in medical service. The successful doctor is usually a sympathetic person; when one is ill one would not want to send for a gloomy, depressing individual, however much this person might know. As for ready sacrifice of personal comfort for the patient's welfare, that is something the medical practitioner must make without even thinking about it. A youth, therefore, who is often depressed and out of sorts, or who habitually thinks only of his own comfort and convenience, ought on no account to be encouraged to enter a medical school.

Good Memory
and Keen
Observation
Necessary

Exceptional keenness of intellect is perhaps not quite so essential in the doctor as in the lawyer, but the former in mental attainments should be well above the average. At the medical school he must master a large number of difficult subjects. In practice he needs a retentive memory as well as habits of thoroughness and concentration. Wide information is a little less important to him than to the attorney, but properly to take care of people's bodies he should know a good deal about their thoughts, habits and occupations. He must above all else be observing. A doctor, nurse or dentist who does not quickly and surely see the things that are happening under his eyes will always be a hopeless blunderer. Dull, unobserving people sometimes by hard study pass their medical examinations, but their efforts in nine cases out of ten have been wasted. They will always be outclassed by physicians who work just as hard and whose minds are naturally bright and capable of concentration.

Great talkers do not, as a rule, make good doctors. Anyone who has consorted much with medical people must have noticed that as a class they speak less eagerly

and excitedly than most other intellectual people. In their professional work they are required to do a good deal of hard listening; many patients prefer to do the talking themselves. One feels most confidence in the doctor or nurse who, when speaking, says quietly, briefly and pleasantly something that is worth while.

A Good
Listener

No one should undertake to enter any of the medical professions without being reasonably sure that he can get all the education necessary. The training, with the possible exception of nursing, will require several years and much money. The advantages, therefore, in medicine are decidedly on the side of a student from a well-to-do family, if he is earnest and studious. Such a candidate for the profession will be able to devote his whole time and strength to his studies in one of the really well equipped medical schools. He will begin early to collect the books, microscopes and other apparatus which the modern physician should have. He will be able, if his teachers advise it, to follow post graduate studies in this country or abroad. A youth with resources may often be advised strongly to study medicine. Whether the parents of a very poor boy should be urged to make sacrifices to keep him at school until he is at least twenty-five years old is sometimes a very hard question to answer. They ought, and he ought, to be quite sure that he has more than ordinary gifts which would make him valuable in his profession.

Considerable
Time and
Money for
Education

To become a physician or surgeon in what is now recognized to be the proper way, a young man (occasionally it is a young woman) goes through one of the colleges or state universities, electing scientific studies and paying attention to the modern languages in which so much medical literature is written. On graduation at the age of twenty-one or twenty-two he enters a medical school for a course of three or four years leading to the coveted degree of M. D. During this course he learns the subjects which every doctor should know and discovers

**Training of
the Physician**

whether it will be best for him to become a specialist or a general practitioner. If a specialist, he takes a year or two more of post graduate study, either at his own medical school or often under some famous man abroad. If he has decided to be a country doctor he may leave at once for the village in which he will hang out his sign. More often, however, even for general practice he seeks an appointment as interne or assistant in some large city hospital. These appointments are sometimes won through competitive examination. In the hospital, during a term of from six months to two years, the young doctor gets a wide, varied experience under the guidance of older men. After that, unless he has had an inducement to remain in hospital work, he goes forth to begin his private practice.

**Starting in
Practice**

If he chooses his locality wisely he will not starve even in the first years. Unless he takes over another doctor's practice, he ought to be sure to start in a growing town. There, even if several physicians are ahead of him, he is likely to get his share of practice. Though in some places there are too many doctors, yet in many places there are doctors who are not very competent. The country seems to be able to support rather a surprising number of medical men of the right sort. Father T. J. Hagerty, who is familiar with conditions among wage-earners, has written: "From the point of view of the actual needs of the common people there are not half enough physicians intelligently and fully to take care of the sick."

Nobody should go into medicine expecting to get rich from it. It is, indeed, part of the ethics of the profession to serve the sick even when the chance of receiving a fee is very slight. Yet the calling is rather well paid by comparison with most lines of work. As is stated by Dr. St. John Roosa, president of the New York Post Graduate Medical School: "A successful practitioner will be able in almost any community to have the comforts of life, so far as his time will allow him to enjoy them." The doc-

tor's income, in brief, is generally at least as good as the average among the people of his personal acquaintance. If he lives on a street where most people have about \$3,000 a year, that is essentially the income he will get from his practice. If he casts his lot among the poor, he does so much work for charity that he is about as needy as they. If he is a physician to the rich, his patients expect to pay high fees.

Remunerations
of the
Physician

The field of medicine is broadening fast, especially in the direction of preventing disease. Some medical schools offer instruction in the means of improving public health. Many doctors give their time to work on boards of health or otherwise to keeping people well. As more and more families learn to live right, with plenty of fresh air at all seasons of the year, and with simple, nourishing food, sound sleep and good warm clothing, it is thought that there will be much less work for the doctors who cure disease and much more for those who are experts in prevention.

DENTAL SURGERY

Dentists are really surgeons whose specialty is the teeth. The occupation is easier to enter than that of physicians and surgeons. A high school education suffices to secure admission to a good dental school. Many of the studies during a course of two or three years are the same as those of the corresponding years in the medical school. Others deal with the surgery of the mouth, straightening of crooked teeth, making gold crowns and bridges, using X-rays in the mouth and the many complicated processes of modern dentistry. The dentist, as has been said, must be an expert mechanic. The amount of delicate machinery and apparatus in his office increases year by year, as does the demand of the public for good-looking, substantial work.

Training of
the Dentist

Only a small proportion of the American people get the dental service they really need. Associations of dentists are doing a great educational work in calling atten-

**Superiority of
the American-
trained Dentist**

tion to the many diseases that result from decayed teeth. A very keen demand exists for American-trained dentists in many other countries, for this science has been developed further in the United States than elsewhere. The well-established dentist earns nearly if not quite as much as the successful physician in the same town. The occupation, an excellent one for those who have the qualifications, may often be recommended to a young man who might make a good general surgeon, but who lacks the means to complete a long, expensive medical course.

NURSING IS A WOMAN'S PROFESSION

While a few young women become physicians and work up a practice, generally among women and children, thousands find their way into the comparatively new profession of nursing. Nurses people have always had—strong, willing women who could be called on in time of sickness to keep the house running and follow some of the doctor's orders. Of late years, however, nursing has been developed into one of the recognized medical sciences, and hospital-schools have been provided at which it is possible to acquire many of the subjects that are studied at medical schools. The graduates of these schools form a special class of workers and are known as trained nurses.

**Qualifications
of the Nurse**

The girl who is fit to go into nursing is one who might equally well study the full medical course if she were able to give the time and money necessary. In practice she is the doctor's special representative in the sick room. She should be as intelligent, observing, quick, gentle and sympathetic as he is supposed to be. She should have the same power of resisting the effects of fatigue.

That the nurse's life may be one to ruin all future prospects of health and physical welfare thousands of young women have found through their experiences in the hospital service during the terrible European war that began in August, 1914. War accentuates the hardships of this calling. Readers of the hospital sketches written

by Louisa Alcott need not be reminded of the severity of the ordeal which this literary woman underwent during our Civil War; we do not realize the extent to which she suffered thereafter from chronic invalidism.

Schools for nurses are usually connected with large hospitals. A young woman who has had at least the equivalent of a high school education enters at about the age of twenty, on probation. During the probationary period of three to six months it is discovered whether or not she is adapted to the work. The full course is one of two or three years. The student does practical work in the wards and at the same time studies such subjects as anatomy, physiology, hygiene, bacteriology, materia medica, massage, bandaging and obstetrics. Her chief expenses are for clothes and incidentals.

**The Training
Course for
Nurses**

If the student of nursing is graduated successfully and duly registered under the state laws, she commands, usually, in the larger cities, a standard salary of \$25 a week. At this rate she may, according to her ability and popularity, be employed only occasionally or every day in the year. The work is very trying. A young woman will probably not endure it for more than fifteen years. In some institutions where a corps of nurses is maintained the hours are as carefully regulated as in a business office, and the nurse has a better expectation of not being completely worn out before she reaches middle age.

**Outlook of
the Profession
of Nursing**

Several new openings for nurses have lately appeared. One of these is the position of school nurse who watches over the health of school children and consults with their parents about proper feeding, sleeping and clothing. Some factory owners employ nurses for a similar work among their women employees. In certain districts a system of visiting rural nurses has been devised to teach people how to take better care of their health. These and other opportunities make it reasonably sure that the young woman who can endure the hard labor connected with this self-sacrificing life, will always find employment.

CHAPTER VII

THE ARTISTIC PROFESSIONS



AMONG the earliest vocations, after theology, law and medicine, to gain the rank of "professions" were several that may be grouped under the convenient term "artistic."

The Instinct
to Do Things
Beautifully

Art, as the ancient Romans used the word, meant at first a right fitting together of the parts of an object. Later it came to signify a fitting together that appealed to the human appreciation of the beautiful. A worker in any of the arts tries not simply to do something useful but something as well that shall seem fine, or refined. More or less art enters into a great many occupations, for an instinct to do things as beautifully as possible is strong in many souls. There are, however, a few occupations in which the workers must possess this instinct in a marked degree. These callings, therefore, especially deserve the name of artistic. Among them are literature, acting, music, painting, sculpture and architecture.

When the
Arts Begin to
Flourish

The artistic professions, according to the experience of history, are likely to grow when a nation has become prosperous and is at peace with its neighbors. Then arises a desire for good music, for pictures to adorn the private house, and for embellishment of public buildings and squares. Where nearly everybody is able and some have leisure to read, a demand for books and magazines grows up. All this is what is meant when it is said that art is the fine flower of civilization. There comes a time in a nation's history when all the energy of all the people no longer must be expended in getting enough to eat, keeping a roof over the head and clothes on the back. At such a period the arts begin to flourish.

It is hard to see how anybody who has watched the growth of the United States in wealth and education can fail to encourage young people who have real and decided artistic ability to follow their bent. Much harm is done by well-meaning folk who confront talented youth with the statement that there is "no money in art," and who urge going into business as the only "practical" or "sensible" thing to do. The artistic occupations, as a matter of fact, offer very substantial incomes to the successful and, so great is the increase in public taste and opportunity for art, they all have a great future in this country. But to say that, and say it vigorously, is not to claim that every boy who draws pictures and every girl who has learned to execute arpeggios on the piano can expect to make a comfortable living from the favorite pastime. Love of doing artistic things is a first qualification for success in art; but it is, after all, only one of many severe requirements.

Artistic
Occupations
in the
United States

The percentage, in fact, of failures in the arts is large and perhaps always will be so. Exceptional talent for serious work in any of the arts is not very common, while an imitative disposition to dabble in them is very common indeed. Even those who by nature are well adapted to mastering the technical part of an art are very likely—probably somewhat more likely than the average of gifted people in other lines—to be one-sided and lacking in some of the general qualifications that make for success in any pursuit. While most successful artists are well-balanced, sensible persons who pay their bills, keep their appointments and do not let hard work get the better of their nerves, you find on the fringe of each of the artistic professions not a few high-strung men and women of undoubted talent who never quite succeed because they lack self-control, good judgment and common sense. The defects of this latter class are often inborn and can scarcely be eradicated by training; their victims are perhaps happier while devoting their energies to art, where

The Failures
in the Arts

their natural interest lies, than anywhere else, even though their peculiarities do not add to the reputation of the professions they represent.

Education for the artistic vocations, furthermore, is not yet quite so well developed and systematized as education for some other professions. There are, of course, excellent schools of architecture, drawing and painting, and music, and at a few institutions one may get valuable help in learning to write. Yet these schools as a class are not always so sure and thorough in their plans of instruction as are the best schools of law and medicine; it is not quite so much a matter of course that their graduates are grounded in all the essentials of the difficult lifework they have undertaken.

If, nevertheless, a boy or girl throughout school has shown marked aptitude for writing or drawing or music and has done reasonably well in other studies and occupations, an artistic career may well be considered. With such people the arts are far from being overcrowded. If a young person has only the one special talent and is weak in other studies, advice as to a vocation will probably not be heeded anyway. One of this latter type should be steered, if possible, in the direction of getting at least the elements of a general education before beginning to specialize closely. No one, of course, who has not displayed in school a keener than ordinary interest in the art in question should think of trying to become an artist.

AUTHORS AND REPORTERS

Americans now spend several times as much money apiece annually for books, magazines and newspapers as did their grandfathers and grandmothers of 1850. That means much more employment than formerly existed for people who know how to write. To supply the public with reading matter a small army of editors, reporters, special writers, novelists, critics, essayists and even poets is necessary. Literature is to-day a better paid pro-

Education
for the Artistic
Vocations

Who Shall
Become an
Artist?

fession than ever before; there is no reason for believing that the world's reading habits will grow less or that works written and printed in good English will cease to be circulated everywhere.

The privilege is a valuable one, that of speaking to thousands, perhaps millions, of readers through the printed page, and of thus being a factor in shaping their beliefs and lives. It is distressing, however, to see one who has neither anything worth saying nor even a bright way of saying nothing struggle on year after year in a literary pursuit, hopelessly unable to meet the competition of keener, deeper minds. Yet a person of this type may have from childhood to old age a remarkable faculty for putting words together on paper.

Good Market
for Literary
Products

The boy or girl who writes fluently, and who is thereby led to think of writing as a profession, should try to size himself up very carefully to discover whether he "must" or only "might" go into this work. He probably "must" if his mind is all the time full of things he wants to say in print and that he could not possibly express in any other way. He "might" to some advantage if he has a gift of saying bright, catchy and unexpected things; such writers find an open market even if they are never recognized as geniuses. A youth also "might" if he is able to look up subjects and write about them in a clear, colorless way; but a writer of this sort generally labors long hours for wretchedly small and uncertain pay. Those, of course, who have no impelling inclination to write should not think of authorship as an easy occupation, for it is not.

"Must" or
"Might"

Professional writing may be divided into authorship, journalism and commercial literature, though the lines separating these divisions are not always distinct. The author, as a general thing, writes books and magazine contributions. The journalistic writer produces informational articles, usually of temporary interest, for magazines and newspapers. The commercial writer uses his

literary skill in selling things by means of printed words. An all-round literary man should be familiar with these three branches of the art, for each is closely related to the other.

Except for a few schools and colleges of journalism, usually connected with universities, there are few opportunities anywhere to be taught to write professionally. English literature and composition are among the subjects included at all high schools, academies and colleges. In these courses one learns much about the construction of sentences and paragraphs, and hears a great deal about what is called style in writing. Yet such classes are not, as a rule, very useful as sources of professional training, for most of the instructors know more about the style of writing that was considered good in England two centuries ago than about the requirements of American publishers and editors to-day. Present-day courses in English sometimes incapacitate one for professional writing.

Unless one has a better plan, nevertheless, it is so important for the prospective writer to be well-educated that he should make every effort to complete a college course creditably. He should not specialize too closely in English studies. His selection of courses should, in particular, include the other modern languages (always remembering that the best writing in modern times has been done by Frenchmen). Those who have made a good start in Latin and Greek before entering college should keep up their work in these languages for at least two or three years more, and should pay particular attention to Latin composition which, by reason of its enforced simplicity and directness of statement, is especially good exercise in writing. Information is so essential a part of the writer's equipment that courses in the sciences, economics, philosophy, history and comparative literature may later prove very helpful. The successful author or journalist must, in fact, be familiar with many subjects, though it is not necessary for him to be a deep specialist

in any but his own—the art and science of interesting his readers and holding their attention.

When school work is finished the best way for at least nine people out of ten to undertake the vocation of writing is through a term of service at newspaper reporting. The experience cultivates habits of industry and concentration. It makes the reporter acquainted with many people—always an asset in acquiring ideas and information—and it brings him into daily contact with the serious, tragic and humorous situations of life.

Beginning as
Newspaper
Reporter

The day's work of the reporter is excellently summed up by Mr. James L. Ford in that interesting and amusing book, "The Literary Shop":

"And every day the young man adds some new experiences to the store of worldly knowledge which will be his sole capital in the profession which he has chosen. To-day the task of reporting the strike at the thread mills gives him an insight into the condition of the working classes such as was never possessed by the wiseacres who write so learnedly in the great quarterlies about the relation of capital to labor. To-morrow he will go down the bay to interview some incoming foreign celebrity, and next week will find him in a distant city reporting a great criminal trial which engrosses the attention of the entire country. He is working hard and making a fair living, and, best of all, he is making steady progress every day in the profession of writing."

The reporter in these days is sometimes allowed and encouraged to sign his "stuff." He thus becomes personally known to a wide circle of readers. On many newspapers, however, the old rule of anonymous contributions prevails and a writer, though he may influence the thinking of millions, is never heard of by most of them. Much history has been made by newspaper men of whom the average person has never known. No school history, in all probability, has ever published a line about J. A. MacGann, employed a generation ago by the "New York

Usually
Anonymous

Herald" as a European correspondent. Yet Mr. MacGann by his exposures of Turkish atrocities altered the whole course of European history, inaugurating movements for Balkan independence that were among the forces impelling toward the general war in Europe.

A properly qualified young man or young woman may secure a chance to be tried out as a reporter at a salary ranging from nothing at all up to \$15 a week. The "cub" is expected to work, if necessary, twenty-four hours a day. He may have to take his life in his hands on some of the assignments given him, for the inexorable law of the newspaper office is that at all hazards he must get the "story."

If the youth succeeds as a newsgatherer there is always a living for him in the newspaper business. Seasoned reporters and "desk men" get, according to the city and the newspaper, from \$15 to \$100 a week (the latter figure being very rare outside of New York City). Men who show ability in directing others advance to the positions of Sunday, or magazine editor, city editor, managing editor and editor-in-chief at salaries ranging from \$1,000 to \$15,000 a year. Often a reporter who has displayed business "gumption" is taken "downstairs"—that is, into the newspaper's business office where the responsible positions, such as those of advertising manager and circulation manager, are rather better paid than most of the editorial positions.

One who has saved, or who can borrow, a little money will sometimes after a few years buy a newspaper property of his own: frequently a country weekly with job printing plant attached, or a small city daily which for one reason or another has come on the market. It is difficult to make a newspaper profitable in these days of high-priced labor and supplies, but the business is one in which the former reporter, if he is also a good business man, has a distinct advantage over others. Succeeding with his property, he becomes a leading man of his community.

Many good reporters find it best not to stay too long in the newspaper business. Those who have an ambition to become authors try their hands at writing books, plays, humorous sketches, short stories or special articles for the magazines. Sometimes a few successes in one of these directions will result in a permanent connection with a publishing house, so that the newspaper man can give up his old work entirely. Many magazines have staff men who are practically salaried reporters of a high grade, and out of the rank of these the magazine editors are often recruited.

**Taking Up Real
Literary Work**

If the reporter, graduated into literature, becomes an all-round *littérateur*, "hack writer" or "free lance," he has engaged in an occupation that is still rather precarious, though it is surer for the competent than it was in the old days when even great authors often went hungry. So many publishers now are on the lookout for really good "copy" that the writer who has the skill and sense to meet their needs does not lack an income.

The calling, however, remains a difficult one except for those who have rather an unusual combination of qualifications. The independent professional writer must have good literary technique; he must have a style that is lively and catchy—that somehow provokes people into reading what they had intended only to glance at. He must be a thorough and very accurate student of the line of subjects he writes about; no publisher likes to take chances with slipshod, inexact work. To get a professional man's income from his writing, the author ought to be a good salesman, for, when his manuscript is completed, he should secure for it the best price possible. He must also be like a great merchant in constantly studying the conditions of the markets in which he sells his goods and the effects of changing styles in the publishing world. It helps if he is an expert typewriter. There is, in fact, a good deal more involved in professional writing than simply sitting down and penning a

**Qualifications
of the
Professional
Writer**

few pages of manuscript occasionally. It means being a live person every hour of the day.

Fiction pays better, on the average, than any other form of literature. Novels are sold by the author to the publisher either for a fixed sum or on the basis of a royalty—that is, of a percentage of receipts from the sale of each book. For an author to receive some very large sum, such as \$100,000, from the sales of his novel, is very unusual. It is quite as common to get less than \$1,000 for a book that has involved half a year's hard work. The prizes in novel writing are large, but the chances, even for the competent, of hardly making more than day wages of common labor are equally so. Most novelists give steadiness to their incomes by writing short stories. These are bought outright by the magazines at prices varying from \$25 to \$500, according to length, strength and the writer's reputation. The writing of plays is far more precarious than fiction writing and should not, as a rule, be undertaken unless a person has an independent income from some other source.

Descriptive articles on subjects connected with the news of the day or with the customs of society and the business world are published, usually with photographic illustrations, by most magazines. Their preparation is an advanced form of reporting. Many such articles are planned by editors and commissioned from writers who are known to be capable of covering them. It may take a young writer some time to "break into" a prominent magazine with a special article. After he has established a connection he can talk over proposed articles with the editor and get regular assignments. Payment is generally by the word, varying from half a cent in the Sunday newspapers and lesser magazines up to five cents in some of the leading periodicals. Professional work on books of information, such as encyclopedias, textbooks, special investigations and reports, is customarily paid for at so much a word. Journals issued in the interest of

Financial
Rewards of the
Literary
Worker

Illustrated
Descriptive
Articles

various trades and occupations make employment for many writers.

The whole field of literary work has greatly broadened, to the advantage of those who have the knack of preparing and marketing good copy. Except for those whose talent nearly or quite deserves the name of genius, it is not yet a profession with prizes equal to those of law or medicine. A successful hack writer's income is about that of a teacher or bank employee of the same experience and attainments. If industrious and regular in his habits, he should be able to average about twenty-five hundred words of clean finished copy a day. If of this weekly production of fifteen thousand words more than half fails to sell at half a cent a word, the writer is probably in the wrong occupation. If practically all of it can sooner or later be disposed of at that average rate the craftsman is doing about as well as can be humanly expected of him.

The Hack
Writer's
Income

Commercial writing has become almost a profession by itself. So few are adept at it, and so valuable may it be made to business, that almost princely incomes await those who have just the right literary touch for selling goods through the printed page. There are writers of advertising whose salaries are understood to equal that of the President of the United States. Throughout the business world there is a constant call for high-grade selling literature.

Writing
Commercial
Literature

To meet this demand not less but much more than average literary ability is needed. The notion that advertising writing is an easy, well-paid occupation which can be learned by anyone who has had a common school education, has made it possible for educational sharpers to reap a rich harvest through correspondence lessons in writing commercial literature. To produce good booklets, display advertising circulars, follow-up letters and business reports, a person should be as broadly educated and as carefully trained in the technique of writ-

ing as if he were destined to evolve novels, plays or special articles. He should also have a well-developed selling sense, for without that the technically correct piece of business literature will lack the elements of success.

Young people should be warned against short cuts into commercial writing. More and more college-bred, newspaper-trained writers are finding their way into these occupations and establishing a competition which cannot be met by the person who has merely picked up a few crude tricks and devices for publicity use. If a liberal education, followed by newspaper apprenticeship, is out of the question, the candidate for commercial work would better, after graduation from high school, connect himself in any possible capacity with a good advertising agency or with the advertising department of a department store and, while constantly observing in business hours, continue to read and study in his spare time. The study of psychology and economic subjects is especially helpful to those who wish to undertake commercial writing.

THE ACTOR AND PANTOMIMIST

The dramatic professions exert a peculiar fascination upon youthful and unformed minds. There is much outward glamour and glitter about the theatre. Boys and girls usually have no idea of the sordid realities of the actor's life: the hard, wearing work, fatiguing journeys, interrupted sleep, uncertain meals, frequent seasons of unemployment, many bitter disappointments through failure to please audiences and other drawbacks of stage life. It must, however, be admitted that the art of acting is one which, despite its hardships, is very alluring also to those who have natural capacity for it, and that, in a financial sense, it often pays extremely well. It is, in fact, a pretty good profession for the clear-headed young person who is a natural mimic, and who has a properly trained speaking voice and intelligence enough to interpret dramatically lines written by playwrights who take

Education and
Training of the
Ad Writer

Who Should
Follow
Dramatic
Professions

it for granted that actors will not be "dummies." It is a very poor profession for silly, romantic people, lacking character and self-control.

Pantomime, the art of expression without words by use of motions of the body, is the most important part of acting. Unless a youth has a real gift for pantomime, a body that easily and naturally lends itself to gestures and expressive movements, he had better stop thinking of the stage. Ability to declaim well is of much less value to the actor than ability to tell an audience a whole story through raising an eyebrow or other bodily gesture. The popularity of motion picture plays has greatly increased the demand for good pantomimists and still further decreased the chances for the actor whose chief qualification is his voice. This point should be made strongly because in many instances the main reason why a young person thinks that he, or she, might have a stage career is because of certain apparent success in "speaking pieces."

The Value of
a Gift for
Pantomime

A naturally good mimic should have at least two years in a school where stage deportment and bodily action are taught. There the young actor will learn to interpret dramatic incidents in pantomime. He will undergo exercises to make the body supple and graceful. Scenes from great dramas and occasionally entire plays will be presented by the students before audiences. These performances are often attended by stage managers in search of promising material. Frequently the school is able to place its graduates with dramatic or vaudeville companies in which, though the newcomer must start in a small way, the chances of rapid promotion are good.

Preparation
for the Stage

The young actor or actress thus launched will probably be started at \$15 to \$25 a week. This will be just about enough to pay living expenses while "on the road." There may even be some question about getting the salary, for minor theatrical companies fail easily. That is one of the risks of the profession. Actors and actresses of established reputation rarely work for less than \$100

**Remuneration
of the Actor**

a week during a season of from thirty to forty weeks. The salaries of great stars may reach \$1,000 a week or more. These rates of payment sound big to a person used to low wages and salaries in other occupations, but it must be remembered that the expenses from which the most careful theatrical person cannot escape are very large, so that it is often impossible to save money on a salary which seems almost fabulous to the village in which the actor was born. Stage clothes are very expensive, and the actor must be well dressed at all times. For the sake of efficiency he must have a quiet room at a good hotel near the theatre from which he escapes exhausted at midnight. While it is pleasant to have a long summer vacation, enough must be laid by to cover expenses during two months' absence from the payroll. Whenever times are hard the theatres are among the first institutions to suffer, and even well-known actors may for months be without employment. These conditions make the salaries seem less remarkable to those who understand what they really mean.

Acting, nevertheless, is a fine vocation for a limited number of men and women who are gifted in the art. It involves much hard work; but so do all worth-while occupations. It is a comparatively easy profession to enter and one in which success, if it is to be reached at all, generally comes quickly.

**Professional
Readers**

Professional readers, for whom there is a considerable opening in most communities, need about the same training as the actor receives. Professional lecturers really should have this training also, though they seldom do.

PROFESSIONAL MUSICIANS

Americans spend annually an enormous amount of money on music, with the result that the musical profession is one from which thousands of men and women make a living, in whole or in part. A comparatively few are great virtuosi: pianoforte, violin or voice soloists,

giving their entire time to concerts or recitals; singers in grand or light opera; conductors and instrumentalists of symphony orchestras; accompanists of leading soloists. Very many others make it their principal business to teach music, in one or more branches, either in school, college or privately. Still others do not make their living wholly from music, but give only part of their time to practicing it professionally, singing in church choirs or quartets, playing the church organ or serving in commercial orchestras. These and other avenues of employment are open to young Americans who have the requisite musical skill and taste.

Music the
Profession of
Thousands

One warning should be given every American who thinks of making a profession of music. In all the upper walks of the calling he must face serious competition from foreign-born musicians, who probably began their studies earlier in life than he and who are certainly much harder workers than most Americans are. German, French and Italian musicians come here because the compensation is better than in the old world. They know their art thoroughly and they expect to put in long hours of daily toil. Success in music is especially dependent on long hard work; talent alone does not give technical mastery. A large percentage of the best paying musical positions in America are held by foreigners, not because there is any prejudice against native talent but because the former are the better musicians. This situation particularly affects young men in the United States who are evidently gifted musically and who might be expected to become well-equipped musicians. Starting later in their studies than the foreigners, they never quite outgrow a certain amateurishness and consequently just fail to reach the standards of the big orchestras or opera companies. American girls appear to compete on more nearly equal terms with German, French, Italian and Spanish girls, though they must face the same rivalry.

Competition
with For-
eigners

The exceptionally musical members of a class are gen-

erally well known long before it is graduated from the elementary school. Madame Nordica, the celebrated opera singer, was seen to be wonderful even when she was a schoolgirl. So was Geraldine Farrar, also great in opera. Not every American girl to whom nature has given a voice can hope to be like these artists, but it is from such material that successful musicians are formed by education.

Hard Work
and an Early
Start

The one great essential, besides evident musical talent, is an equally evident willingness to work very hard. The world will not pay a large salary, and usually will not pay a salary at all, to the merely clever musical amateur. The sooner, therefore, a person who is to be a musician gets started in his studies the better, as a rule. It will not do to wait until a broad general education has been secured, because the muscles of the throat or hand will by that time have become less pliable. Even those who are not ambitious to become virtuosi but who will be content to teach music in a modest way or to do church work in a small place, should begin to study at a good conservatory of music as soon as possible after the age of fifteen or sixteen. Some of the studies necessary for general culture can be taken at the conservatory.

Nearly every large city now has at least one good conservatory, and in many smaller places are conservatory graduates who can give the beginner a right start. It is not necessary or even desirable to go abroad until after the elements of the profession have been learned in an American school.

Cost of
Training

Musical education is expensive; so that unless a family has abundant means, the ambitious son or daughter should feel quite sure of himself or herself before permitting the sacrifices that must be made. The studies at any conservatory worthy the name will be severe, leaving very little time for earning money outside.

The incomes of professional musicians vary greatly according to the individual's ability, reputation and the

kind of work in which he is engaged. Many bands and orchestras are unionized, with wage scales similar to those of other expert mechanics. Orchestras composed of musicians otherwise employed through the day have usually a fixed price for evening engagements—as, for instance, one dollar per man per hour, with double time after midnight. Church organists are paid either by the year or by the Sunday. The beginner may be glad to get a chance in an obscure church at two dollars a Sunday; the salary, on the other hand, of the organist and choir master of a big city church will run into the thousands.

Remuneration
of the
Professional
Musician

Players in symphony orchestras receive smaller salaries than might be supposed, considering their great names. Only a few eminent musicians can command the attention of the public at any one time. Their earnings during the period of highest success may be very large. The same statement is true of the successful opera singer, who sometimes receives for one evening's work as much as a competent stenographer earns in a whole year.

Private teaching is generally paid by the hour or half-hour lesson, at rates varying from fifty cents to twenty dollars a lesson. Only very famous masters, of course, can command such prices as the latter. Music teachers in schools and colleges receive an annual salary. Conservatory graduates start in these positions at from \$500 to \$800, or the equivalent in board, lodging and salary where the teacher lives in the school. Conservatory teachers are musicians, as a rule, who have shown more than ordinary ability in the profession. Their earnings from teaching are on a level with those of college and university instructors of the same grade and experience, and they reserve some time for outside engagements. At a prominent Eastern conservatory the teachers average from one to three dollars an hour and serve, most of them, from five to ten hours a day, six days in the week from the middle of September until the middle of June.

The Music
Teacher

An Enterpris-
ing American
Musician

Management of classes and music schools is becoming something of a profession by itself. While knowledge of music must be expected for this, business ability and alertness in dealing with all sorts of people are especially needed. A typical music school manager was the late Dr. Eben Tourjée, founder of the oldest and largest American conservatory. To show Mr. Tourjée's resourcefulness, when he was a young man and was convinced that he could expand his music classes in a New England seminary into a real conservatory such as many European cities already had, one of his trustees said to him: "Why, Mr. Tourjée, you could no more start a conservatory in this country than you could get music out of a pig's tail." "Excuse me, sir," replied the young man, "I believe I can do both." And at the next meeting of his trustees he appeared with a perfect whistle made from a porker's tail—a feat that so convinced his supporters of his earnestness and ability that he was permitted to have his way and do the thing which had been held impossible.

The Com-
poser's Art

Composition, the writing of original music, offers a profession to a limited number of Americans. The writers of cheap, flashy airs often make money fast when they strike a vein pleasing to popular taste. Theirs, however, is a very uncertain calling, for no one can predict what the public will like. The writing of classic music, such as the great European composers produce, is still an undeveloped vocation in this country, and but a few men and women are pursuing it. The composer must be a scholar, with a profound knowledge of the mathematical side of music as well as of literature and the fine arts.

PAINTERS, SCULPTORS AND DESIGNERS

Ability to draw, and that really means ability to see, is the first essential in the arts of design. "Drawing is the honesty of art," the great French painter Ingres used to say. Only those to whom it comes natural to draw can be painters, sculptors, decorators or designers.



"THE SPIRIT OF THE LAKES."

Lorado Taft

Art school training is so valuable that one could wish many more young people were able to take advantage of it. Learning to draw is to a whole line of occupations just what learning to read is to many others. Drawing sharpens the eyesight and observation, and educates the taste and judgment. Most of those who seriously study for any length of time in the art school, even if they do not become just what they had at first intended, are prepared for responsible, useful work.

Value of Art
School Training

The artistic professions are particularly attractive to those who are strongly "eye-minded"—to those, that is to say, whose most powerful impressions come through their sight and not through the hearing or sense of touch. Many "touch-minded" boys and girls also like to draw, but not so much because of interest in what they see, as because they enjoy the feeling of the pencil or brush sliding over the paper. These latter sometimes succeed in art, but their chances are not nearly so good as are those of the "eye-minded." It is the youth with keen and accurate eyesight who will generally best learn to record on paper or canvas or in clay the things that he has observed and been fascinated by. Most schools nowadays teach enough drawing so that young people, by the time they reach the age of fifteen or sixteen, have an idea whether they may excel in freehand drawing. Any who from early childhood have done well in this branch may well think of what the artistic occupations have to offer them.

Being
"Eye-minded"

Painters and sculptors who are highly gifted, practice high-grade professions in which there are large prizes and honors. These callings have suffered somewhat in reputation because they contain many one-sided, unbalanced geniuses—artists who may be very wonderful in their special line but who in the ordinary affairs of life lack self-control and common sense. They are, nevertheless, excellent callings, in and for themselves.

The sculptor's profession seems to be a little less over-

**The Outlook
for the Young
Sculptor****Remuneration
of the
Sculptor**

crowded than the painter's, and to extend, in this country at least, rather the surer means of employment to the able and highly trained. The sculptor represents in clay (instead of on paper or canvas) for reproduction in marble, bronze, wood or other material, and his professional standing depends almost entirely on his being an accurate as well as creative draughtsman. His work may take any one of several directions. He may, if his reputation is established, receive commissions for statues and public monuments in every part of the United States. While starting on his career, however, he may be glad to do small portrait heads for \$100 each, or he may take orders from a granite or marble firm for cemetery memorials, he doing the hard work and they making the profit. Many monuments are erected each year in the United States, either in streets, public squares or parks, in national or private cemeteries and also on or in buildings. These projects make work for a host of sculptors, a majority of whom have their studios in New York City. The remuneration sometimes runs to high figures—from \$10,000 to \$100,000 on large monuments. The expenses of executing one of these commissions, however, are much heavier than the layman might suppose. The successful sculptor usually hires one or more assistants, young men recently out from the art school. These receive from \$50 to \$100 a month and invaluable training at the master's hands. A few women succeed with monumental sculpture, and others make a living from executing small sculptures, generally reproduced in bronze.

A grade lower in popular esteem, but not less useful to the world of commerce and industry, is the commercial sculptor who does work for architects. In such a sculptor's shop are made the plaster of Paris models of buildings by means of which the architect shows his client how a proposed structure will look. Here, too, are fashioned the ornamental parts of the finished skyscraper or church: the carved stone columns and pilasters, the cor-

nices, the models from which the bronze doors are cast, and many other features which the average person accepts without thinking how they were produced. This sculptor's employees may sometimes be seen doing their carving right on the building, working on staging. Properly to direct a commercial shop, with understanding of the requirements of architects, a sculptor should have had a broad artistic education. Many of the leaders in this occupation are of foreign birth, but there is every reason why American-born boys with practical artistic talent should consider it.

The Commer-
cial Sculptor

In the art of painting the best opportunities are in portraiture, landscape painting, mural decoration, and illustration. For historical, allegorical and religious figure pieces, of a kind once popular, there is almost no demand to-day.

Well-to-do people in all countries like to have the record of their personal appearance handed down to descendants in the form of the painted portrait. This social custom has in no wise been checked by photography. The number of persons who can afford painted portraits increases continually, and with this increase the chances for the competent painter's employment. Considering, indeed, the expansion of this field, it is rather remarkable that so few young people take the trouble to prepare themselves thoroughly for portrait painting. Many of the portraits for which people pay large sums, are made by half-trained draughtsmen.

The Outlook
for the Young
Portrait
Painter

The landscape painter, even of high standing, has a harder time to live to-day than half a century ago, when many American business men regularly bought each year a few "scenes" from the Hudson River, Mexico or the Grand Canyon of the Colorado. Scenic landscapes have become unpopular with collectors, and the simpler "impressions" which many artists try to do instead are not always understood by the public. Yet a good many people still buy pictures for their homes, and among their

selections there are more than likely to be a number of modern landscapes at prices ranging from \$25 to \$5,000. One is not to suppose that the landscape artist can go from his studio each morning and do a thousand dollar picture before returning for lunch. The effects really worth painting do not come at his bidding. What watchful waiting is sometimes required appears in this little anecdote reported by Mr. William Howe Downes in his life of the American artist, Winslow Homer: "One summer many days passed in which Homer did no painting at all. His brothers did not quite understand this unusual idleness. Finally his elder brother ventured to remonstrate. 'What is the use of all this fooling around?' he asked. 'Why don't you do something?' In a good-natured tone he was told to mind his own business, but no explanation was offered. There in the studio a large canvas was set, and yet day after day passed and nothing was done. Presently it became apparent that the painter was waiting for a certain effect of weather or of light. The whole summer passed away, and he did not get what he wanted. 'But he got it next year,' remarked his brother. He knew precisely what he wanted, and could wait patiently until the opportunity came to him."

The Landscape
Painter

The mural painter decorates walls of buildings with pictures illustrating some religious, historical or allegorical theme. This branch of art has very great promise, for with the construction of fine buildings in every part of the United States every architect is tempted to say to his client: "I think we ought to have some mural paintings to beautify this handsome structure; they would cost only ten thousand dollars more." The great decorative paintings of the National Library of Congress, the Boston Public Library and at many of the state capitols are causing building committees to look with favor on the idea of employing mural painters. To qualify for this kind of work a young man should have had regular art school training, followed by a year or

The Mural
Painter

two of study and observation in the great European art centres. He should then secure employment in the studio of one of the artists who are engaged on large decorative commissions. From the first he should cultivate as wide an acquaintance as possible with architects, whose aims and problems he should try fully to understand.

The art of illustrating books, magazines and commercial literature by means of drawings has not perhaps advanced quite so rapidly as might have been predicted twenty-five years ago, for its development has been somewhat hindered by the popularity of engravings made directly from photographs by the half-tone process. Still, illustration affords a living for a very large number of persons who have learned to draw with taste and skill. It is an occupation for which one should be just as well educated as if one were intending to paint portraits or model statuary. Much harm is done by schools which advertise to teach the whole art of illustrating in twelve lessons. Sometimes, however, a naturally talented person will from such a course get useful hints for making a start and may progress rapidly from that point. Many women draw well for illustration.

The Art of
Illustrating

The incomes of popular illustrators are sometimes very large. One famous commercial illustrator, whose well-dressed figures of young men and women are familiar in the advertising pages of magazines and on street-car placards, is said to receive \$1,000 for each drawing and to be able to do one a week. Such prices are exceptional, of course. The good ordinary illustrator thinks himself lucky to average from \$3,000 to \$5,000 a year, and he lives in fear that times will be hard or that his style will go out of fashion. Some magazines and many newspapers employ salaried illustrators. Cartooning pays best in this field, though the compensation is often overstated.

The Income
of the
Illustrator

Many art school graduates who for one reason or another do not find a foothold in any of the foregoing pro-

fessions, obtain employment as decorative designers or craftsmen. A very long line of well-paid occupations is open in this direction. In some of these it is not absolutely necessary for a person to have had art school education, but in all of them one is helped greatly by having had it. Most schools of art have departments or courses in decorative design and handicraft.

**Decorative
Design and
Handicraft**

Two distinct forms of occupation are open to designers. A person may be engaged to make designs for execution by others or may himself combine the pursuits of designer and craftsman and actually execute in the materials the thing planned on paper. Most of the chances for designers of the former type are in factories and stores. There has been of late years a great revival of public interest in handicrafts, such as wood carving, wrought-iron work, pottery, hand weaving and the like, which may be profitably practiced by a person of artistic ability. The independent craftsman, like the sculptor and mural painter, should cultivate the friendship of architects and landscape architects, for through these come many of the best commissions for artistic work. An occupation which the designer may develop into a commercial business of his own is that of the interior decorator who is capable upon order of completely equipping a private house or public building.

ARCHITECTS AND DRAUGHTSMEN

**The Ideal
Architect**

The architect designs and supervises the erection of buildings and other construction. To merit the name of "architecture" a structure should have some claim to be regarded as beautiful or at least dignified. The ideal architect has qualifications in three principal directions: the good taste and enthusiasm for beauty that distinguish the artist; an understanding of the nature and use of building materials, which is part of the scientific engineer's profession; a knowledge of costs and figuring of profits, such as the business man is expected to have.

The architect's profession is one in which there are no easy berths. Architectural failures are not so readily forgotten as are those of the lawyer or doctor. They stand right where everybody can see them, year in and year out, and it does not take many failures to give an architect such a reputation for bad taste, carelessness or lack of good faith that hardly anybody will want to employ him. Consequently, to continue his successes the architect must toil incessantly, not only over the details of his office work but in informing himself about the work of the leaders in his profession, living and dead. Unless, indeed, he can develop himself into a broad, intelligent man, he will probably never be anything more than a salaried draughtsman, working under the supervision of another. A boy who has a right to think of architecture as a possible profession is bright in all, or nearly all, of his studies, is especially skilful in drawing and design, is keenly interested in the construction of houses and other building operations, and is possessed of much natural good sense. An architect, dealing with all sorts of people, cannot afford to be a dull, morose or one-sided man.

Qualifications
of the
Successful
Architect

Architecture, it should always be remembered, is an expensive profession for which to make proper preparation, and for this reason a poor man's son must very carefully take account of his resources in advance. It is possible, to be sure, to get a position as office boy in an architect's office, and by taking courses in draughting and design at night school or even by correspondence to equip one's self to become an architectural draughtsman. After that an alert man, constantly endeavoring to increase his knowledge of the past and present of his great profession, may with prospects of success open an office of his own. The better professional education, nevertheless, is by way of the university or technological school. Such a course, which should have been preceded by the equivalent of a good high school education, will consist

Education and
Training of the
Architect

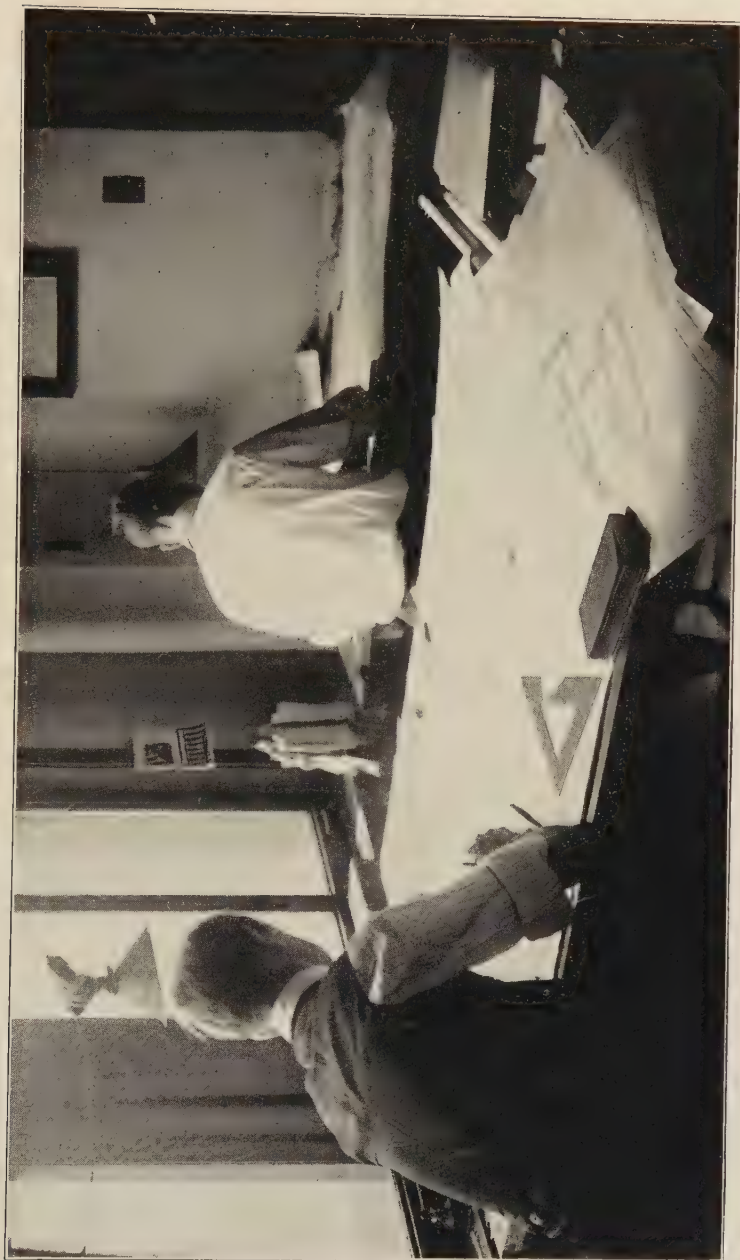
**A Year in
Paris**

of some of the more general college or "tech" studies and definite instruction in the history of architectural styles, freehand drawing and perspective, architectural design and ornament, the materials of present day building, problems of heating, ventilation, plumbing, electrical installation and other similar subjects. After graduation from the school of architecture the young man who can afford it should have at least a year of study at Paris, the world's art centre, where most of the leading American architects have finished their education. At the age of twenty-three to twenty-five he should be ready to obtain employment as a draughtsman, if possible with some firm engaged on large projects.

**The Outlook
for a
Draughtsman**

The draughtsmen are the central working force of an architect's office. Under his supervision they make the actual plans from which the builder or contractor creates houses, public buildings, churches, bridges and other constructions. They are required to be intelligent enough to work well without being watched at every step, for the heads of the firm are usually busy consulting with clients, figuring costs, mixing with people from whom they hope to get contracts and doing so many other things, that they expect the product of the draughting room to need little detailed attention. Draughtsmen are paid from about \$15 a week to beginners up to \$40 or \$50 for high grade, experienced men. Some architects prefer to remain draughtsmen all their lives, trusting to a sure and regular salary rather than to the uncertainties of running an independent office. The more ambitious draughtsman, however, strikes out for himself after a few years' service in another man's office.

Except in small cities, where the architect must be an all-round man, the independent practitioner is very likely to develop some specialty, such as the designing of school-houses, department stores, suburban residences, commercial buildings or railroad architecture. He leads a busy life, for in addition to managing his office he must belong



IN THE DRAUGHTING DEPARTMENT.

to clubs, societies and other organizations of the people among whom he expects to do business. It helps if he is able to take part in civic movements of one kind or another, serving the public in an unpaid capacity. Modern building is so complex that in large communities it is often best for three young draughtsmen to form a partnership. One of the partners should be strong on the social side, making it his business to cultivate a large acquaintance among people who may give the new firm commissions. The second man should be an exceptionally gifted draughtsman, capable of attending to the management of an office. The third should be thoroughly familiar with practical engineering work, including costs of construction, and should be capable of following building operations to see that the contractor lives up to the architectural specifications.

Organizing a
Firm of
Architects

A few women have entered the architect's profession, usually specializing in domestic architecture. The occupation is hardly yet one to which the average girl of artistic ability can be recommended, unless she has some unusually good reason for expecting to succeed therein. For the same kind of talent she will ordinarily find many more openings in designing.

A closely allied profession which affords many chances to both men and women is landscape architecture. The landscape architect lays out estates, gardens, parks, cemeteries and, under the recently developed science of "city planning," whole towns. In addition to the usual architectural subjects he needs to be an expert in the planting and care of trees, shrubs and herbaceous plants. If he can add the qualifications of a practical forester he has an advantage. There are several professional schools of landscape architecture for men and women.

Landscape
Architecture

THE ENGINEER

When we speak of an engineer we may mean a high-grade mechanic in charge of some kind of engine or we

may refer to a person whose profession it is to plan and direct schemes for making natural forces do man's work. In the latter sense we shall use the word "engineer" in describing the engineering professions.

**Modern
Definition of
"Engineer"**

Engineers of to-day, whatever their special field of work, are all engaged in doing what the "civil engineer" of a century and a half ago was supposed to do. "Civil engineering," according to a famous old definition, "is the art of directing the great sources of power in nature for the use and convenience of man." The word "civil" has come in modern times to be applied only to the engineer who builds railways, bridges and highways, while a host of other engineers are now recognized. Yet engineering remains the art and science of utilizing power. The engineering professions for a long time to come must continue to call for much of the best talent of each generation. More and more occupations are being revolutionized by engineering science. While these occupations are only to a very limited extent open to women, they give large opportunities to young men who have the requisite qualifications. Although the different kinds of engineering demand more or less different abilities, there are certain qualities of mind which are common to all good engineers everywhere. One of these qualities is alert mentality. An engineer may have by nature a frail, delicate body (though physical strength in these pursuits is a help as in practically all occupations); but he must at all events have an active and robust mental equipment. It sometimes happens that in a family one of two brothers is quick and bright in his studies, while the other is dull and plodding, and that the parents suppose, because the latter clearly cannot be educated for one of the "learned" professions, he is just the boy to send to a technological school for engineering training. They can make no worse mistake, unless the plodding boy happens to be exceptionally gifted in mechanics, in which case he will probably make a place for himself, even if he never becomes a

**Qualifications
of the
Successful
Engineer**

good all-round engineer. The slow-witted youth generally fails to develop into an engineering expert.

Boys who are above the average in mathematics are often advised to study engineering. Now, every engineer is supposed to know the higher mathematics, and a person incapable of mastering these studies should certainly be dissuaded from engineering. Yet, according to Professor George F. Swain, of the Massachusetts Institute of Technology, the importance of great mathematical ability in the engineering pursuits is popularly exaggerated. Mechanical skill, on the other hand, is of use in every kind of engineering, for there is always apparatus to be devised and made to work accurately. "If a boy has no bent for mechanics," says Thomas Comerford Martin, "keep him out of electricity." The same statement is presumably true of every branch of engineering at present.

Mechanical
Skill Required

Two mental qualities which the engineer must have in large measure are constructive imagination and regard for the truth. He must have the ability to image to himself machines and processes for doing the desired work. He has to look around each project and foresee the troubles and difficulties that may arise when it is put into actual operation. In this sense he should be a man of imagination. A boy who has never shown capacity for looking ahead and meeting trouble before it arises, will probably be a failure in engineering.

One, again, who is more interested in arguing than in finding out the real truth about matters that come up, will not make a good engineer. When an engineering specialist is planning a reservoir below which thousands of people will live, or a bridge to carry hundreds of express trains daily, or a scheme of electric wiring which might start a fire in an office building where five thousand people are employed—in such constructive designs he may sacrifice many human lives if he has talked himself into holding a false theory as to the strength of his materials. For the sake of the safety and comfort of his

Regard for the
Exact Truth

fellow beings, he must be the kind of person who will calmly and laboriously arrive at the exact truth of each situation as it comes under consideration. There is little place in engineering for the man whose delight is to take one side of an argument and uphold it through thick and thin.

**Education
and Training
of the Young
Engineer**

Whatever branch of engineering a young man undertakes he should secure a broad, thorough education in applied science. It is no longer easy to become a real engineer by starting as an office boy in an engineering office and learning there to make a few drawings and blue prints. Sometimes, to be sure, a very bright boy may still rise into the profession by this route, but most of the directing of engineering work is in the hands of men who have had a regular education. After finishing a high school course, the future engineer should attend one of the technological schools for three or four years and should follow this course by doing apprentice work in some great engineering enterprise. He will be helped by having had a year or two in a draughting office. In the early years he must be ready to gain experience wherever the chance offers itself. Some young Americans fail to qualify in engineering occupations because they are unwilling to go far from home. The engineering graduate should be glad of an opportunity to work in China or South Africa or anywhere else, and he must not be afraid of having to mingle with rough people or to undergo considerable hardship.

**Remuneration
of the
Engineer**

The young engineer must not think of money, though he will probably be better paid from the first than are most young men of his age and experience. Professor Robert H. Thurston, of Cornell University, tells of one of his graduates who refused a \$1,500 position to take one as a common laborer at fifty cents a day. The lad knew what he was doing; he was gaining experience that later would make him valuable. Six years out of college his salary was \$3,500.

Graduates of technological schools usually start in positions paying from \$40 to \$75 a month. The competent—and not many incompetents are graduated—are advanced rapidly. Some one hundred and eighty-five graduates of a leading eastern technical school, when ten years out, reported incomes that averaged over \$3,000. Ten of them had \$10,000 or more and one earned \$35,000. So many engineers are being trained that some observers fear the present high salaries will not be maintained, especially those paid to beginners. Yet there is no doubt that all over the world new openings are constantly appearing for educated engineers.

Present High Salaries

A boy would better determine to study engineering rather than make up his mind in advance that some specialty, such as wireless telegraphy or chemistry, will occupy his sole attention. Early in his course in the technological school he will be better able to decide in what direction he wants to specialize.

The variety of occupations open to a man with this kind of education seems almost infinite. Nearly all businesses of any size can with profit employ some kind of engineer. Civil engineers lay roads, bridges, railroads, and other immovable constructions. Electrical engineers design and operate lighting, traction, telegraph, telephone and other systems involving the use of electricity. Mechanical engineers deal with machines, motors and other works in action. Gas engineers administer gas systems for the lighting of cities. Hydraulic engineers develop water power by means of dams and canals and build the reservoirs that supply cities with water. Sanitary engineers devise plans for the better health of communities, disposing of sewage and other wastes and providing for supplies of pure water and air. Chemical engineers use their knowledge of the science of changes among substances to produce new and improved articles of daily use; all sorts of businesses employ industrial chemists regularly or occasionally to test and improve

Variety of Occupations Open to the Engineer

materials used, and the chemical industry itself is enormous.

New forms of engineering frequently appear. A few years ago a number of "system and production engineers," as they were then called, began to see how science could be applied to making people work more efficiently. Under the name of scientific management this has become a very important branch of engineering. The expert in scientific management studies simple operations like those of lifting weights and feeding materials into machines, and finds that almost always there is a way, previously undiscovered, by which economies can be introduced. It might have been supposed that in the many thousands of years in which human beings have been laying bricks someone would have long ago devised the easiest and most effective method of doing it; but it was left for modern scientific engineers to discover how to get rid of what is called "lost motion" in this and other trades. There is no more inviting and fascinating branch of engineering to-day than scientific management.

We learn by doing, and the best engineer is a man who is constantly doing things—often things that have never been done before. It is not surprising, therefore, that by the time he reaches middle age the engineering expert is a liberally educated man. He is in daily contact with earnest people and with the real facts of life. He constantly faces and overcomes difficulties, not by brute force but by the power of ideas. It is no wonder that he becomes the kind of broad-gauge man every right-minded boy would like to be.

Scientific
Management
a Branch of
Engineering

The Man
Who Does
Things

CHAPTER VIII

SOCIAL SERVICE, CIVIC AND CHARITABLE WORK

WITHIN the past twenty-five years, as mankind has grown both more humane and more wise in the treatment of the unfortunate, a vast field of important professional service has developed. In this field are many specialties and even to enter upon some of them now requires as much training as is required in the more familiar professions.

Not only is a thorough education needed in so-called social service work, but the highest character and spirit of devotion. It is not the vocation for the selfish, the weak, or the avaricious. No one enters upon social service work to get rich. Its great compensation lies in the effective assistance which one can give to those whose lives may be profoundly influenced by such help. The point must be once more made that to do such work well requires character and a thorough preparation. Mere good intentions and sympathy will not do. Only a trained specialist can do this work well.

**The New
Professions**

We see in the poorer quarters of many cities settlement houses, with their boys' clubs, girls' clubs, public lectures, concerts, summer vacation plans, and many other fine activities. There are something like five hundred such settlements in this country alone, and thousands of institutions, especially schools, universities and churches, conduct settlement activities. As we watch the gratifying achievements of the settlement leaders we may think that we should like to do similar work; or we may be attracted by the work of the agents or secretaries of the children's aid societies, or of the charitable organizations which serve the needy. On the surface, occupa-

**Trained
Specialists
Necessary in
Social Service
Work**

tion of this sort, as is the case in teaching, looks simple and most interesting. It is interesting, but not easy or simple. All such workers find that they must continually study and get together to exchange their experiences and learn from one another's failures and successes.

**Social Service
Workers in
Demand**

Another point should here be made. In the great business establishments, as well as in the large public and private institutions, like hospitals, social service workers are more and more in demand to do personal work. Careers in social and charitable service, therefore, are opening up in many directions, calling for the best types of manhood and womanhood.

**Social
Investigation**

Among the most difficult and technical of the new vocations in social service is that of social investigation. A small body of men and women have grown to be expert in getting information about conditions among working people—wages, unsanitary dwellings, and other facts showing the life which the masses are compelled to live. No one can do this work who has not had a good university training in economics, statistics, and social science. A number of public school systems, and some cities and States, have established bureaus of investigation which publish studies from time to time throwing light on civic and industrial conditions. We are familiar, of course, with the United States Bureau of Labor, and perhaps your State and city has such a bureau of its own.

**Probation
Officers**

Our law courts have undergone changes within recent years. We have now special courts for young people who are so unfortunate as to have to be brought to court. Probation officers are at work here as well as in the higher courts to turn these unfortunates to a better life. Both men and women may become probation officers, truant or attendance officers in the schools, and children's aid agents in connection with the state or city charities. More and more the public is requiring high standards of education for those who do this work.

Social workers also engage in health campaigns, such

as those intended to prevent the spread of tuberculosis, accidents, and epidemic diseases. On the public playgrounds of many cities there are especially trained playground teachers who have had to take courses very much as other teachers must take them.

SETTLEMENT WORK

To convey a more intimate idea of the field this chapter is covering, we will let some of the social service leaders tell their story in their own words:

"Settlement work offers many opportunities," says a noted worker in this field. "In a town without kindergartens, or school social centres, the settlement will, doubtless, try to carry on a kindergarten and social centre. So teaching of domestic science, service of doctors, nurses and play leaders, tenement house investigations, distribution of milk for infants, all may indeed form an important part of the settlement programme."

**Opportunities
Offered by
Settlement
Work**

"What, then, are the opportunities for the settlement worker? There are many," declares another enthusiast. "In our growing and crowded cities and in our rural districts where social and educational facilities are often inadequate, the settlement is a centre of noble associations. Even when the town takes over one or another of the settlement departments, there is always work to do. The nurse in the hospital gets one kind of training; but seeing her patients in the more personal relation of a settlement worker is an education in itself. Similarly, the domestic science teacher is taught about foods at the professional school; in the settlement she will apply this training from the viewpoint of one who regards the meaning of the standard of life taken as a whole."

**Value of
Training in a
Settlement**

The director of a settlement is generally called the head-worker or head-resident. The other workers or residents are engaged as heads of special departments or activities. Frequently college graduates volunteer their services for the experience which they get. To be a good

**Qualifications
of a Successful
Head-worker**

head-worker requires first vital energy; second, a deep social interest; and third, a genuine liking for people. As general education for this work one should have some knowledge of economics and economic history, also of universal history and literature, and should have made some study of civic institutions. The successful head-worker must have a background of general and reliable information. The schools of philanthropy or social work—there are five of them in this country—give special courses for settlement and other social workers. Efficient head-workers are in great demand. The salaries paid are equivalent to those paid in school service. Many of these positions, however, are held by unsalaried people who desire to donate service.

Another type of settlement worker in demand is the group leader or club director. Group leadership is of the greatest possible value. The reason that the average club is so often unsuccessful is because it has not had the proper leader. Such a leader may rise from the ranks of the members, or may come to the settlement from a college, or business house. But the successful club organizer must have within himself or herself the capacity for true leadership. Settlement work is, in fact, a severe test of character, training and personality. It is a mirror of quality in the workers.

**A Melting
Pot of
Nationalities**

As to club work, whatever really appeals to the worker may be made to interest the young of the settlement neighborhood, whether it be through the medium of physical culture, the drama, or other arts, as well as the more serious activities. The settlement is a melting pot of nationalities. It is a town meeting and a school for citizenship.

Settlement workers usually live in the neighborhood which they serve, and because of their close contact with the needs and actual conditions of the locality, their advice and help are usually solicited whenever legislation is sought which looks to ameliorating unfavorable surround-

ings. For instance, the settlement houses have been active in having laws passed to protect young children. Some of the books and reports published by social workers are of great interest and should be read by all who wish to be intelligent citizens.

In many colleges now, particularly in the classes in economics, history, and literature, students are guided to an understanding of the great field of social service. The result is that many fine types of neighborhood or settlement workers come from the colleges for a year or more of experience before going into a definite life-work. For those who are planning to go into public service, or even into business, the experience of a year or more of residence in a settlement house is most illuminating, and is sure to be of practical benefit.

The Culmination of a Liberal Education

To give an idea of the typical programme of settlement activities, we quote from the reports of two well-known institutions:

House Plan

“Ground Floor.—The milk dispensary, the nurses’ rooms, the boys’ pool room.

First Floor.—The theatre, with professional stage and biograph equipment.

Second Floor.—The theatre balcony.

Third Floor.—A large and thoroughly equipped room for kindergarten work; boys’ club, a print shop, and a room for men workers.

Fourth Floor.—The gymnasium, with its showers, dressing rooms, etc.; and the basketry and carpentry room.

Fifth Floor.—The girls’ department, model tenement, club rooms, and dressmaking room.

Sixth Floor.—The principal living rooms for the residents, head-resident’s room and office.

Seventh Floor.—The long dining room, kitchen, etc., and residents’ rooms.

Roof.—Space for roof garden.”

Weaving
Together
Human
Relationships

"The great fundamental object of the social settlement is to weave together human relationships. What have two households side by side to do with each other? Has the family who lives upstairs anything in common with the family who lives downstairs? Two boys at school? Two girls at work? If friends, what is there in that relationship to make them happier and better? If persons are isolated in our city, ought we not to give them the joy of association? Is there not an indefinable value in association? The social settlement says 'Yes'; and so, year after year, day after day, numbers of persons go in and out of our House, some bound together by mutual interests well defined, others just for the pleasure of a social good time, some with no special interest or ties. As a result, however, of rubbing shoulders with one another, we are constantly seeing persons energized and made alive by this group association. Boys pass the bickering stage to the point of abiding by the decision of the group majority, and gradually come to build up ideals of manhood. Men joined together in a 'Workingmen's Circle' get courage to face even a year of sinister fear. This group association has not been presented in any other way than to emphasize good fellowship. The large values of the social settlement do not lie in those things which can be defined, but in the intangible and elusive element of relationship. A House is justified if it has stood back of its members and given them hope and faith far more than for any concrete success or failure."

Good
Fellowship
Emphasized

"Classes in Citizenship"

"The School for Citizenship has ten classes and sixteen teachers. Six of the teachers come from Harvard, one from Emerson College, and nine are drawn from the community, friends of the House, or former pupils. Classes meet Mondays, Tuesdays and Thursdays. The total registration for the ten classes is one hundred and twenty, eighty of whom attend regularly.

“Seven nationalities are represented as follows: first, Jewish; second, Polish; third, Italian; fourth, Lithuanian; fifth, Portuguese; sixth, Greek; and seventh, Irish. This year the school has aimed to reach especially the residents of the North End and the immediate vicinity.

“The classes are intended for new arrivals. Two classes are made up entirely of men and women with no knowledge of the English language; two other classes are a little more advanced. The average age is higher this year than last; many are over thirty and some are over forty years of age. The classes meet twice a week and in some cases three times a week.

Good Work
Among
Immigrants

“There is a special class in naturalization under a Harvard student. Individual aid is given in making out first and second papers. Applicants are regularly coached for the examination. The U. S. Constitution and the Federal, State and City governments are discussed. The more important historical events are also studied in order that the new citizen may not only pass his naturalization tests, but have a sound civic foundation.

“The teachers meet once a month to compare notes and discuss methods and results. Three times a year a general conference is held by all the teachers and club directors. Each teacher and club director makes report on the work, after which a general discussion on questions submitted to them follows.

Conference of
Teachers

“The elementary pupils speak English better than they write. They find much difficulty in writing from dictation and in spelling, and are apt to pronounce English words as if in their own language.

“The advanced classes take up English, arithmetic, spelling, and geography, devoting a part of every evening to each subject. A small part of the evening is spent in a general discussion of civic topics. The student is encouraged to use his knowledge of English and the teacher is silent except when it is necessary to stimulate conversation. Aside from the arithmetic taken up in the Eng-

lish classes, there is a class in advanced arithmetic and one in algebra, meeting once a week. These classes are conducted by two Harvard men specializing in mathematics.

"Immigrants coming to this country after the age of sixteen find it very difficult to obtain work without some knowledge of English, and appreciate the growing opportunities of learning the language.

"The aim of our classes is to organize the newcomers into small groups for self-education and give them personal attention, so that when they become naturalized they will be better prepared to assume the responsibility of citizenship."

HOSPITAL SOCIAL SERVICE

"Within recent years," says a noted physician in discussing hospital social service, "a number of hospitals in Boston, New York, Chicago, Baltimore, and Philadelphia, have realized that ailments for which patients seek relief are often the results of insufficient food, of bad housing conditions, of ignorance as to the simplest rules of hygiene, or of worry and fear." Since treatment of the patient's symptoms is useless unless their cause is reached, and since this cause turns out often to be social rather than medical, social workers are, in many cases, necessary to genuine treatment. Good food, fresh air, sound teeth, decent sleeping quarters, are indispensable for restoration to health in many cases. But doctors and hospital officials have neither time nor training to help in this work. Home work and personal maladjustments must be dealt with by someone who is interested in the patient as well as his symptoms—and is the task of the social worker in a hospital dispensary.

Cases in which the doctor feels that he needs such assistance are referred to the social worker, who is on duty at the hospital during the hours of consultation. The social worker is in touch with the charities of the city. The patient is taught the simple hygienic rules that are

The Aim of
the Classes

Necessity for
the Social
Worker

so little known to many patients, loans are made, the money necessary for flat-foot plates, false teeth, trusses, and other apparatus, is supplied where needed. When patients are about to leave the hospital wards, the social worker arranges that they shall not be discharged half-cured, but sees to it that they finish convalescence elsewhere, that the good results of hospital treatment are maintained.

The rush and pressure of work in hospitals do not encourage that personal and intimate relation which most sick people need. The social worker tries to fill this lack, by making the hospital visits of the patient less discouraging. The hospital physician has no time to talk with patients about their plans, their discouragements, their fears and worries, as the independent practitioner does with his private patients. Yet hospital patients need this as much as private patients, and in many cases cannot be cured without it. So the social worker, as part of the hospital staff, gets the patient's confidence, and gives advice and assistance that are of great benefit in the treatment. Relief from worry and the regaining of courage and poise often work miracles in healing bodily ills.

The Friend
of the Sick

The training for social work such as can be had at the Schools for Social Workers in Boston, New York, and Chicago, is the most important that one can choose in fitting one's self for this work. Such knowledge of physiology, hygiene, psychology, and sociology as can be acquired in college, will go a long way toward equipping one for social work in hospitals.

Training of
Hospital Social
Worker

BUSINESS SOCIAL SERVICE

In no other field has the idea of social service spread as in that of business and manufacture. Employers have learned that a healthy, well-paid and well-treated body of workers is the greatest asset a business can possess. There was a time when business houses and factories worked very long hours, twelve and more each day. In-

deed some old factory notices show that the sunrise was the opening time.

We have now learned that to consume the strength and energies of workers is both dangerous to our citizenship and disastrous, in the long run, for the employer. Weak, ill-fed, tired, discontented and overworked employees cannot do good work; they can never work as well as those who are fit and happy.

**The Welfare
Department**

To-day, therefore, in many large establishments we find a special department sometimes called the Social Service or perhaps the Welfare Department. The purpose of this department is to give individual attention through a trained worker to the personal needs of the workers. Says a prominent director of social work in business:

"Welfare work now includes whatever can be done in a business to benefit, first, the physical condition of the employee.

**Attending to
Sick Employees**

"Sickness in the establishment itself must be looked after. In many places a trained nurse is in constant attendance in a sick room to treat and advise. Often a little help for a minor ill enables the patient to go back to work. In former days a slight ailment meant a day at home, with consequent loss of money to the employee. Arrangements are often made to secure the services of physicians free of charge to the employees. Outside of the establishment sick employees are given attention so that they do not lie neglected.

"In addition to the sick room, recreation rooms are frequently provided for the noon and evening hours, where the employees may enjoy reading, dancing, and music.

"The working conditions in the building itself are studied: toilets, ventilation, light, temperature, dust and other essentials.

"Home conditions and personal habits may be influenced by friendly suggestions.

"The second main object of social service is to protect employees from loss of income during sickness by benefit

and insurance funds. Loans in the establishment save the employees from the money lenders with their high rate of interest, and sometimes oppression. Anything which gives the individual the most for his money or helps him to take care of his money comes within the scope of this work. Store lunch-rooms whose aim is to give the best food almost at cost, are familiar to all.

"The third aim may be called educational. This includes instruction in the special work of the employee, as in salesmanship, and general education through classes

Offering
Educational
and Social
Advantages

carried on in the establishment. Lectures, clubs, debating societies, libraries, theatricals, and meetings of various kinds by groups of employees are encouraged.

"Through dances, entertainments, and other ways that may be devised employees are brought together in a social way, and get to know one another better.

"An ultimate aim of all such work is to see that justice is done to every employee. In many cases the social worker speaks for the employee and acts as arbitrator between the management and the employees.

"Some social service departments are so highly developed as to require a large staff of assistants. The activities they cover are great in extent and importance. As in all social work tact, training, devotion and real ability are essential to success."

CHILD-SAVING WORK

"Some years ago," says a leader in child-saving work, "a bright boy of eight lost his father and went to live with his grandfather. The grandfather took the boy in from a sense of duty, but did not care for him. Before long the boy ran away. A childless family of ample means and culture in the same town wanted a child in their home. The boy was placed with this family and there he found the sympathy he had sought. The story here is quickly told, but the actual task took the time and thought of a fine, trained woman."

A Typical
Case

Scope of the
Work

To help children live good, successful lives is a big task. The principles and practice of this work are now standardized, and the results are so successful that child-saving work is almost its own reward. Those who now manage such enterprises are, for the most part, college or university graduates. The field is rapidly widening, and new specializations developing. Court proceedings against cruel or neglectful people, co-operation with homes, public and private institutions, all come within the scope of this work.

POSITIONS IN SOCIAL SERVICE, CIVIC AND CHARITABLE WORK

Thanks to the efforts of such organizations as the Intercollegiate Bureau of Occupations and the Young Men's Christian Associations, information has been collected as to the kinds of positions and salaries attached to the vocations described in this chapter.

Playground Positions

Steady
Growth of
Playground
Movement

Twenty-two States have made provision by law for playground and recreation commissions or city departments, for the use of school buildings and grounds for recreation purposes, and for public funds with which to equip, maintain, and supervise the recreation centres. Some cities maintain playgrounds and recreation centres under paid supervision, while other cities maintain them under volunteer workers. Many cities employ recreation workers throughout the whole year. In some cities recreation commissions direct this work; in other cities playground associations; in some places school boards; elsewhere park boards; and in certain cities the work is done under the direction of special departments of the city government.

The positions in this field are:

1. Superintendent of recreation or recreation secretary for a city system.

This position involves general administration, includ-

ing construction and equipment of buildings and grounds, organization and promotion of the activities, and the direction of the supervisory force. It is analogous to the superintendency of public schools. The salaries range from \$1,200 to \$5,000.

2. Department or district supervisor.

This position is in reality that of assistant superintendent, and has to do either with the work in given sections of the city or with special lines of activity. The salaries range from \$600 to \$2,400 per year.

Duties and
Salaries of
Playground
Officials

3. Director.

This is the title given to the person in charge of an individual centre, which may be a playground or a recreation building, or both. The position is analogous to that of principal of a school. Salaries are from \$600 to \$2,000 per year.

4. Play leader.

In this position one comes into immediate relation with the children in organizing and leading the games and other activities. Salaries vary from \$40 per month to \$1,400 per year.

Special training in conducting games and organizing athletic activities is necessary for the play leaders. In addition to this, those in the supervisory positions should have a knowledge of child psychology, should know the best methods of playground construction and equipment, the prevailing plans of playground administration, and should have received a broad training in sociology.

Special
Training of
Playground
Officials

Settlement Positions

There are several kinds of opportunities available in settlement work. The head-resident is the leader in the life and work of the settlement as a whole, assigning the duties of the different residents and associate workers, seeing that the different branches of work mutually reinforce one another, keeping the House in sound relation with public interests, caring for its financial affairs, and

laying out plans for the future. The salaries of head-workers range from \$1,500 to \$3,500.

The assistant head-worker sees to the detailed carrying out of the settlement programme, keeps in close and continuous relation with the leaders of all the various organizations which are under the settlement auspices, and attends to the working of all the specific services of the settlement in its community. Salaries for this position range from \$1,000 to \$2,000.

The director of work among boys has charge of clubs and classes for older boys, directs their athletic interests, leads their summer vacation outings, follows them up in their homes, co-operates with their teachers, and helps them in their problems of employment. Salaries for such service range from \$1,000 to \$2,000.

Residents in training spend a year in study and practice before being assigned any administrative responsibility. Some settlements provide allowances or fellowship stipends of from \$300 to \$600 for the training period.

Positions in Organized Charity Work

The general types of positions are:

1. The general secretaryship of societies in the larger cities, the duties of which are the supervision over the work as a whole, the representation of the society before the community, and the larger organization problems. The salaries run from \$1,500 to \$4,000.

2. The assistant secretaryship involves immediate supervision of family work and administrative details, at salaries of \$1,200 to \$2,400.

3. Financial secretaryships offer opportunities for propaganda and financial work at salaries from \$1,500 to \$3,000.

4. Secretaryships of special committees, such as those on the homeless man, tuberculosis, the betterment of social conditions, and so forth, at salaries ranging from \$1,200 to \$2,400.

Duties and
Salaries of
Settlement
Workers

Duties and
Salaries of
Organized
Charity
Workers

At least a year's previous experience in working with families and contact with organization and co-operation work is needed as preparation for these positions. Two years' experience is usually necessary before taking a position as general secretary, but financial secretaries and secretaries of special committees have secured their training in allied fields.

Public Health Positions

There is to-day great interest on the part both of the public and of sanitary officials as to the need of better work for public health and especially for the sanitation of water supplies, milk and other food supplies, ventilation, housing, street cleaning, mosquito control, public baths, lodging houses and the like.

Importance of
the Service

The approach to service and employment in these various lines is most often and most naturally by the way of a board of health, in connection with philanthropic or social work, sanitary surveys undertaken by cities, or else through employment with sanitary engineers, civil engineers, sewer departments, city engineers, water boards, or park departments. The pay is at first small, running from \$40 a month (for beginners) upwards to \$1,000 or \$2,000 a year.

Those desiring to undertake a work of this kind ought to provide themselves first with a good high school training, and then with courses in general physics, general chemistry and general biology, such as may be taken in the lower years of many colleges and sometimes even in high schools. To these they should then add, if possible, courses in general bacteriology, sanitary science, public health, preventive medicine or public hygiene.

Salaries Paid
and Education
Required

At the outset beginners must be prepared to work hard for small pay, but those who are able to acquit themselves creditably and to make and report observations accurately and fully may become sanitary inspectors in field work or laboratory aides in indoor work.

Positions as Experts in Labor Legislation and Factory Inspection

Drafting child labor bills, seeing them properly presented before legislative committees, and watching them through the various stages until they become a law, are allied activities calling for technical training, especially in the legal profession, although men who have made a careful study of labor legislation may successfully undertake this work without complete professional knowledge.

**State Factory
Inspectors**

There is great need of development of higher standards of factory inspection by the departments in nearly all States. The weakest point in child labor reform is in the administration and enforcement of laws. Many States have departments of factory inspection employing a chief, with numerous deputy inspectors, and there is an increasing demand for civil service tests and technical knowledge to fit for important branches of public service. Unfortunately, in very many States, political considerations appear to control, and opportunities for men of high standing and thorough training are not numerous, but, apparently, such opportunities are steadily increasing.

**Experience
and Training**

Applicants for positions as secretaries of state committees, investigators, experts on child labor legislation and factory inspectors, should have some previous experience with industrial problems, although capable young men often do valuable work without preliminary training.

Positions in Municipal Research Work

Bureaus of municipal research, of which there are sixteen established and several now under consideration, need engineers, accountants, investigators and secretaries who can apply "efficiency tests" and "scientific management" to municipal problems. The New York Bureau receives daily requests for experts for public departments and private agencies. The problem is not to find opportunities in this line, but where to find men competent to capitalize them.

So great have been the opportunities for men trained in municipal research methods, so widespread the demand for leadership in civic work (and it will increase tenfold during the next decade), that it has been found necessary to establish a Training School for Public Service in connection with the New York Bureau, the purpose of which is to "train young men of executive ability for the study and administration of public business; to meet a growing demand for students and administrators able to test the efficiency of present methods of municipal service and to introduce improved methods."

**A Training
School for
Public Service**

Four hundred and eighty-five different applications and inquiries have been received by this Training School from one hundred and six cities in twenty-five States. The applications came from men of every profession—lawyers, physicians, civil and sanitary engineers, college professors, school superintendents and teachers, settlement workers, ministers, accountants and men in business.

Positions as Civic and Commercial Secretaries

There are few more attractive opportunities for civic and social service work than those offered by the progressive commercial organization. The former commercial body or board of trade was usually nothing more than a board of narrow local interests. The present progressive commercial organization is not simply a chamber of commerce, it is a chamber of citizenship, and citizenship implies a recognition of the demands of every phase of commercial, industrial, municipal, civic and social welfare.

**The Progressive
Commercial
Organization**

The commercial executive, therefore, if he is to be successful in his work, and if he is to inspire his organization with the ideals which are coming each year to be increasingly recognized as essential to the effective business men's organization, must have a thorough training in the fundamental principles underlying civic and social progress. The general secretary of the commercial organiza-

**Training of
the General
Secretary of
the Civic
Organization**

tion, therefore, must have an intelligent understanding of the principles underlying public health, housing conditions, charitable administration, child welfare, educational processes, public recreation, social legislation, and the whole field of municipal development, which may be classed under the term "city planning," including traffic regulation, sewer, street and bridge building, paving, street cleaning, public parks and playgrounds, construction and arrangement of public buildings and similar problems, as well as the general commercial and industrial activities which are the functions of every commercial body.

The assistant or departmental secretaries in such an organization must in a degree be specialists along some one or several of these lines, and are charged with the responsibility for solving intensively these various problems. The personal qualifications necessary are those demanded by every other responsible position—an understanding of human nature, a reasonable degree of diplomacy, tact, energy and foresight.

While most men in these positions have up to this time received their training through practical experience, the demand for special training is indicated by the opening of two schools for training commercial and civic executives. The general university courses which fit a man for work in this field are economics, sociology and psychology.

**The Demand
for Civic and
Commercial
Executives**

There are perhaps four or five thousand civic and commercial organizations in this country. Probably less than three hundred men can claim a training particularly fitting them for positions as executives of these organizations. The demand, therefore, is practically unlimited, and there are continually scores of positions for trained men in this field which it is impossible to fill. There are organizations which have searched for a year or more for men whose qualifications would fit them even for subordinate positions which were open. Furthermore, a man

who has proved his worth in the organization of a small community is in demand for positions in larger communities.

Salaries of commercial executives run from \$1,200 or \$1,500 in the smaller towns to \$8,000 or \$10,000 in the larger cities. Many positions now pay \$5,000 or \$6,000 and a few as high as \$12,00 or \$15,000.

**Salaries of
Commercial
Executives**

Earnest and high-minded young men, desiring to render specific public service as well as to earn their living, should carefully consider the feasibility of entering this field of endeavor. Inefficiency and graft are conspicuous in most city governments. The average American town or city is laid out with a lamentable lack of taste, ugliness and filth on every side. There is work a-plenty ready and waiting for the public-spirited commercial and civic executive.

CHAPTER IX

BUYING AND SELLING: AGENCIES OF DISTRIBUTION

 HE world's business consists in the main of two types of operation: finding or making things that are useful and then getting these things into the hands of the people who can make use of them. Those who find or make objects of utility are engaged in productive work; those whose labor helps to transfer these useful articles from the ownership of one person to that of another person are distributors. The distinction is a good one to make, though, of course, some workers do both kinds of work. For instance, most of the farmer's time is spent in producing things; when, however, he hitches up his horse and hauls a load of potatoes to the railroad station he becomes one of the agents of distribution who finally get these edibles into other people's kitchens. The principal purpose of a department store is to distribute commodities, but under its roof you will often find several manufacturing and repairing departments that strictly should be classed under the head of production. There is, furthermore, another sense in which some experts in the science of economics use the word "distribution," referring not to the physical transference of goods from one person to another (which they would class as part of the process of production) but to the quantity of products assigned or distributed to various persons. To facilitate our discussion, however, let us keep to the simple meanings of the words "production" and "distribution."

Defining
"Production"
and "Distribu-
tion"

Trade, or commerce, the science of buying and selling, is the principal mental factor in distributing goods. Transportation, the science of using power to transfer ob-

jects from one place to another, is the physical factor. Before any transference of goods is made, two people, at least, must have been persuaded that it is worth while for these goods to change ownership. If the exchange of objects is not from hand to hand, somebody must provide means, such as a horse, a cart, a boat or a railroad engine, to carry goods from one owner's premises to another's.

The instinct, or imagination, used in buying and selling things is the basis of civilized life. It is that which distinguishes mankind from the higher animals and insects. They, too, make things; some of them like the beaver and the bee are very productive. But it needs the imaginative power of the human brain to foresee how something dug to-day out of the earth or fashioned by hand in a mountain valley can be used a month or a year hence by somebody else a hundred or a thousand miles away. Some individuals have a much keener sense than others of the value that may be given to an object by putting it into the right hands. Such people are born traders or salesmen. Without them men would to-day be living like monkeys; we could have no civilization.

Imagination
Chief Factor
in Trade

Trade, at the same time, could never have amounted to much if the impulses that led men to create things had not also suggested ways and means of making use of the forces of nature to transport goods that man cannot conveniently and efficiently carry on his back. The inhabitants of barbarous countries where there are few or no highways and the locomotive's bell has never been heard, must depend for the most part on what each family or village group can extract from the earth. Business, as we understand it, can be carried on only where there are highly developed systems of transportation.

No Transporta-
tion No
Business

SALESMANSHIP AS A CALLING

All the five million or more Americans who are engaged in commercial occupations to-day are, theoretically, in this kind of work because they have a liking and capacity

for buying and selling. Many, as a matter of fact, go "into business" for other reasons. Some choose labor in an office because it is cleaner, and is regarded as more "genteel," than even better paid labor in the workshop or on the farm. Some simply follow their parents' line of occupation. A few of those who choose their calling more intelligently select buying and selling because they have heard that people who sell things are more likely than other workers to be paid what they actually earn.

**Why They Are
Buying and
Selling**

The only adequate reason, however, which justifies a young person in seeking a mercantile or banking job is the belief, based on observed facts of ability and character, that he can later qualify as an expert in some kind of buying or selling. These processes are of the very essence of business life. They are also very similar, both depending on somebody's seeing how somebody else will be bettered by an exchange of objects. The good salesman generally makes a careful buyer, and vice versa.

**The Test as to
Fitness for
"Business"**

This, therefore, should be the first test when a boy or girl is thinking of "business" and wondering whether the chances will be better in it than in a profession or in one of the mechanical trades: If you have the kind of imagination that makes you quick to foresee how some one other than the present owner can make better use of certain goods, and the kind of energy that urges you to bring about this desirable change of ownership, then you probably will succeed in some branch of commercial life. For particular occupations there are other requirements, of course. The teller at a bank, for example, should have a delicacy of touch in handling money and an unfailing accuracy in dealing with figures that would be of little or no value to an ordinary commercial traveler. The business man's secretary-stenographer needs a variety of intuitions and information that a salesgirl handling a single commodity at a counter may get along without. There are plenty of desirable places in business life in which ability to "trade" in the Yankee sense of the word—that is, to

dicker and haggle over prices—is of very little account. Yet everywhere in the commercial world those who expect to rise above the low-paid, semi-mechanical jobs must have a keen sense of the value to themselves and others of bringing about exchanges of commodities. The born producer takes his keenest joy in making things, in inventing and creating; the born business man, in the art and science of transferring things from one owner to another, with profit to himself.

The most successful business man is almost invariably a good salesman. He may, and probably does, have other qualifications for success, for it often happens that an excellent seller of goods is a failure as an all-round business man. The instinct to effect exchanges of commodities is very much like the instinct that leads to artistic creation; it may be too well developed in an individual, needing a balance of other qualities. Yet in the long run selling is the very essence of trade. In the occupations connected with the exchange of money and other certificates of value, such as banking and brokerage, good salesmanship is an equally evident requirement. Those who come up from humble clerical positions are always those who have the selling sense.

**Importance
of the Selling
Sense**

The marks of the natural salesman are sometimes apparent among school children. The instinct to trade or barter is, of course, one of these characteristics. A boy whose chief interest is in inventions and mechanical devices, but who is quite careless of his own interests in an exchange of jackknives, will probably never make a successful salesman. A mind that readily absorbs and gives out information has one of the important qualifications of salesmanship. To sell goods one must know all about them and about a great many other things, too. The selling argument is couched in language—usually in spoken words. Hence the seller must be a talker; though if he talks all the time and never gives the other person a chance to say anything he will also fail in his work.

**The Successful
Salesman a
Good Talker**

Personal
Appearance
of the
Salesman

What is called "personality" has much to do with success in selling. One would not select a boy or girl who bids fair always to be awkward, uncouth and unattractive. The seller need not be distinctly handsome but he should be one who immediately makes a favorable impression. He must be neat in personal appearance; a young person who is careful of his clothes and still not inclined to overdress will meet this requirement, while a careless, slovenly youth will find that he has a heavy handicap to start with. Tact and graciousness of manner have much to do with ability to sell; they can to a certain extent be acquired, but every advantage is with those to whom they come natural. Along with a genial disposition must go an inborn love of making one's own will triumph over another person's. Too much of the fighting quality, however, spoils sales, so that a boy of aggressive, bullying nature will not easily learn selling science; at the same time the salesman should be one of those people whose courage is only increased by rebuffs and disappointments. Keen observation is another very essential trait. In selling goods one must watch the prospective buyer with the closest scrutiny, to know when to press him hard and when to go slowly. Belief in his own powers is an invaluable trait in the salesman. "I made up my mind when I went on the road to sell goods," said a very successful commercial traveler, "that I could sell anything to any man. If the goods I sell him are not right he will probably not repeat. That is why I must be careful to select an employer whose manufactured product comes up to my line of talk. Yet that first sale does not in any way depend on the manufacturer. It depends on me—on my tact and pluck." It is the salesman taking this attitude who makes sales that often seem nothing short of marvelous. Of such sort was a young canvasser for a telephone company who brought in a contract from a farmhouse some miles out from a large city. The bills were paid promptly each month, but as no calls either came from or went to

Perseverance
and Self-
confidence

the new subscriber, the exchange manager became curious to know who the people were. One day he ran out in his automobile and found that the service had been sold to two old people, the husband bedridden and the wife stone-deaf.

It is good business for those having real capacity for salesmanship to develop their gift as early as possible. The salesman is likely to be at his best in young manhood when, along with his other characteristics, he has vigorous physique and persistent enthusiasm. The call for high-grade selling ability is always active, and the salesman should have an advantage over most other workers in that he understands how to market his own services for a good price. Begin Young

Two kinds of salesmanship are recognized in the business world: outside and inside selling. The main difference between them is that the outside salesman goes after business while the indoor salesman handles business that comes to him. It takes much more pluck and persistence to go out among people, often where one is not wanted, and to try to interest them in a line of goods or service than to stand behind a counter and hand them out something which they came prepared to buy. The outdoor salesman is on his mettle all the time; if his selling talk lacks force he fails to get orders and must seek another occupation. The defects of an indoor salesman are not nearly so evident, and in the past a great many such salesmen have been little more than mere handlers of goods. Except, however, that the outside worker may have more trouble in reaching his "prospect," the principles of selling are the same everywhere. Much effort is now being made to improve the quality of inside selling. Outside and
Inside Selling

As this effort succeeds the payment for such service gradually rises. Heretofore, while outside selling has been one of the best of occupations for a progressive and ambitious person, the job of inside selling has been included among the worst forms of "blind-alley" work.

Schools of
Salesmanship

Considering the importance of salesmanship, the number of schools at which its principles are taught is very small, though there are more of them now than a few years ago. It used to be thought that selling ability was inborn and could not be imparted by others. This, to a certain extent, is true. Yet it has been proved by those who train book agents, insurance canvassers, department store sales people and others, that even those who have a natural knack for salesmanship can learn things of great value from the experience of others. Buyers are much alike at all times and in all places, and the methods that bring the business in one successful salesman's career are very likely to be good for other salesmen to know about. If the particular branch of salesmanship which a youth hopes to enter has a training school anywhere in his locality he should by all means get this preliminary education. The course will generally not be a long one; it may be conducted in connection with actual productive work. Few people really speak well, with clear, cultivated enunciation; yet for all people who sell goods (except, of course, those who do so through printed publicity) the possession of a well modulated voice is a great asset.

*The Traveling Salesman and the Canvasser*Defining
"Drummers"
and Canvassers

Young men who hope to become high-salaried salesmen very generally go "on the road" where the opportunities are better than behind the counter. In this vocation the commercial travelers, or "drummers," are ordinarily those who go among retail merchants soliciting orders for a wholesale merchant or "jobber." Canvassers are those who sell goods or service directly to the people who will use these. The commercial traveler is sometimes regarded, or regards himself, as of a higher class than the canvasser, but both are outside salesmen following the same principles of action in approaching and interesting customers and in closing bargains where possible.

This outside selling demands so great physical strength and endurance that comparatively few women are found in it. For some forms of book-selling and other small canvassing the one sex appears to be as well adapted as the other. Occasionally a woman has the grit and vigor to stand the fatigue and irritations of covering territory for a wholesale firm. In general, however, it is man's work, and work for only those men who are capable of pushing themselves with no boss to supervise. "The percentage of failures in canvassing," writes the sales manager of a leading publishing house, "is probably greater than in any other business. The principal cause is this: that every canvasser is his own manager. Few people, in the aggregate, are competent to work without supervision. In office and factory employment persons holding jobs have business enough given them to keep them constantly at it from opening time until the closing hour. Their work in large measure is cut out for them. In canvassing a person is all by himself. He punches no time clock. He can make one call or twenty-five or fifty. If he wants to report twenty-five for one day when he has made only ten, the manager will seldom be the wiser; lack of orders will for a time be blamed upon lack of experience. A great many people, when subjected to this temptation, will sit down and rest rather than work, not forcing themselves to make money even though they want it and need it."

Women and
Outside Selling

Working
Without a Boss

The commercial traveler is assigned a district in which he must become personally acquainted with all the retail tradesmen in his line. His personality counts for much, because, although business is not supposed to rest on sentiment, the salesman who makes himself both liked and respected will always sell the most goods. The old type of overdressed, swaggering and often dissipated drummer is disappearing. The careful salesman never "crowds" his customer, forcing on him more goods than he can use, for to do this is to make the next visit unwelcome.

**Remuneration
of the Salesman**

The traveling salesman, if he continues in the business, usually becomes a man accustomed to earn a rather large income. He is frequently guaranteed a minimum salary, say one hundred dollars a month, traveling expenses and a commission on sales above a certain amount. Some salesmen prefer a single commission on all sales, paying their own living expenses. A seasoned traveling salesman with a good line in a prosperous territory may earn as high as five or six thousand dollars a year, though such incomes are not common.

Canvassing presents very similar chances to those offered by salesmanship among retail merchants. The lines which have long been recognized as most lucrative for expert canvassers to handle are books, insurance, bonds and stocks, and real estate.

**The Book
Canvasser**

The book canvasser has an occupation that is usually regarded as thankless and unpleasant. Yet there are people who make a good living from it. Publishing houses try to eliminate the uncouth, uneducated failures who often drift into this calling after they have failed at many other things. They send out bright, well-dressed young men or women of intellectual capacity. One large firm has a rule that if after special training and a fair trial the canvasser cannot earn at least \$25 a week he is advised to look for another occupation. In this calling a good man makes about \$2,500 a year; a "top-notch" man, about \$4,000.

**The Bond and
Stock Seller**

Bond and stock selling employs a considerable number of active people. It is an occupation that in the larger cities has been injured by the practice most large financial houses now have of organizing special purchasing departments of their own, to deal directly with the securities wholesaler. The consequence is that the bond salesman falls back more and more on small sales to individuals and to less important firms or institutions.

Insurance canvassers solicit business for the various life, fire, accident, and indemnity insurance companies.

The business thus secured is enormous, and still not half our lives and buildings carry the insurance they ought to have. Insurance soliciting is hard canvassing and in at least one branch of it, that of life insurance, the chance of securing good compensation has been cut down since the leading insurance companies have been limited in the amount of new business they may take in one year. It is reported to be much harder than formerly for the life insurance agent to make \$25 a week. Those who do the most difficult and unsatisfactory canvassing of all, the industrial insurance agents, selling very small weekly premium policies to wage earners, average less than \$12 weekly. An industrial agent who makes \$18 or \$20 is an aristocrat of the calling.

The Insurance Agent

Real estate canvassing offers perhaps the most promising of all occupations of this sort. The wonderful growth of our cities and the steady increase in farm values makes the sale of urban and rural properties a comparatively easy one for a clever solicitor to promote. The selling is usually on commissions that run from $2\frac{1}{2}$ to 25 per cent. of the amount involved. The successful canvasser becomes known as a real estate "broker" and may earn up to \$5,000 a year.

OFFICE WORKERS

Behind every salesman is a dependable somebody whose duty it is to make his selling easier by keeping track of his records and transactions or otherwise facilitating his work. The great businesses of buying and selling have created large classes of office workers whose positions in reality partake of the nature of mechanical trades. Many men, to be sure, and some women, use the office routine as a means of becoming familiar with the selling problems of a business, and the better-paid workers in this group absolutely must be able to co-operate with the people who sell things. Yet after all the qualifications of a good office person are more nearly those of an expert mechanic than of a brilliant salesman. Stenographers, tele-

Office Positions Like Mechanical Trades

phone operators, and telegraphers are machine operators who depend on speed, accuracy and patient determination to surmount a vast amount of labor with almost endless repetitions. Bookkeepers and others who administer records need the same characteristics. Their work, while it is a very necessary part of selling, is just the kind that the natural salesman is likely to run away from. It lacks the excitement of dealing with people instead of with inanimate things, and it is too full of steady humdrum. We have seen that most leaders of business were formerly salesmen; that is why the big business man so often possesses vigorous imagination, aggressive dash and determination, marked sociability and good fellowship. He keeps his place because he is a getter of business; but to keep business he needs the help of a number of people who are capable of making his office like a smooth-running, high-gearred machine.

Office workers, as a general thing, are not so well paid, grade for grade, as the sales people with whom they are associated. They are often not so well paid as experts in the mechanical trades. Average office positions for a great many workers are the kind in which one settles down to a life time of hard, wearing work for comparatively small compensation. The offset, to some minds, is that one wears a white collar and has an undeniably respectable occupation. It is, however, a kind of work that must be done, and it offers wide-open avenues of escape for the ambitious and observant: into the "selling end," for those who have the gift and inclination for salesmanship; or into distinctly professional, and therefore well paid, service of the same general sort for those who can become more than ordinarily proficient and intelligent. The bookkeeper or stenographer who thinks he could get business as a salesman can almost always secure a chance to try, and he starts with the advantage of having seen and heard how it is done. Anyone in these and allied callings who will study his occupation in its broader aspects

**The Big
Business Man
Once a
Salesman**

**Outlook of
the Young
Office Worker**



A MODERN BUSINESS OFFICE.

may graduate into one of the newer professions where there is practically no limit to his earning capacity or to his chance for a useful career: the stenographer into the private secretary or office manager; the bookkeeper into the accountant or actuary; the filing clerk into the system engineer; the telephone operator into the telephone traffic expert.

Out of a class of school children one would choose for office work those who stand at least fairly well in their studies, who are more than ordinarily neat and deft in what they do with their fingers, and who are persevering and capable of sustained effort. Those who have more than usual mechanical ability ought to go into agriculture or manufacturing, but it often happens that such drift into office work. While good health is important to the office person, physical robustness and overflowing energy is not particularly necessary. Men and women of the husky, vigorous type, indeed, frequently lack the patience to work long hours at a stretch at a desk.

More and more of the world's office work is falling into the hands of women to do. Years ago, before the advent of women into business life, all ledgers were posted, letters copied and filed, in dusty, dimly-lighted offices, by men who gradually as the years went by lost the freshness and flush of youth and acquired the sallow parchment-like skin that invariably accompanied the "mutton-chop" whiskers of the old-time bookkeeper. Women, because of their domestic training and natural sense of order and neatness, do this kind of work better than men. Their physique is less disastrously affected by it, especially if they have modern ideas of right living. Their presence in business offices has brought an atmosphere of refinement and cheerfulness not previously there. It is sometimes mistakenly urged that the business woman is crowding men out of employment. The error in this statement consists in supposing that there is only a fixed definite amount of work to be done in the world and that the

**Qualifications
of the Com-
petent Office
Worker**

**Proper Work
for Women**

more workers there are the less each worker will get. The truth is, the more people there are at work earning money, the more money they have to spend in hiring others to make and distribute the things they would like to have.

It is not surprising, therefore, to find that, except in court work and a few positions where traveling is required, stenographers are usually women, and that more and more of the bookkeeping of business is done by them. In telephone operation they have almost completely superseded the young gentlemen who in the early exchanges used to watch for the subscriber's signals to "central."

Stenography and the Stenographer

Let us include in the stenographer's occupation the expert operation of the typewriting machine. Few young people nowadays learn typewriting without undertaking to be proficient in the art of shorthand, by which they can take high speed dictation from the business man, the notes later to be transcribed on the typewriter. Writing machines have become practically universal in business life. Since the first patent for such an instrument, issued in 1829 to William Austin Burt of Detroit, invention after invention has improved the working of these machines. Other devices for the reproduction of written documents, such as the mimeograph, multigraph and "writer press," are also part of the equipment of the modern business office. Efficient operation of this machinery demands of the stenographer very considerable skill of the sort that is required in many mechanical trades. As usually trained she operates the keyboard by the "touch system," the fingers falling upon the keys which she knows by heart so that she does not have to lift her eyes from the "copy." Speed on the typewriter is desired in most businesses. The plodding, uniformly slow style of operation commands so small compensation that a girl or boy who cannot develop ability to "speed up" under pressure should never be advised to continue in stenographic work.

Women Do
Not Crowd
Out Men

Mechanical
Skill Demanded
of Stenographer

The stenographer must master a good system of stenography. This part of her education also has a mechanical basis; she trains her hand to a series of movements that must be mechanically right if ever she is to acquire speed. The use of lines and dots as symbols of words dates back to the time of the ancient Romans. The needs of modern business have made stenography, or shorthand writing, a very important accomplishment for office workers. Just as on the writing machine, accuracy must be accompanied by speed. The average person, speaking straight ahead, uses from one hundred to one hundred and fifty words a minute. Unless the stenographer can keep up with dictation at this rate, without becoming confused or losing the distinction between the lines and curves of her symbols, she is in the wrong occupation. Neither intelligence nor conscientiousness will save her from humiliation in the busy office where things have to be said and done quickly, if at all. When a factory is speeded up, only the real mechanics can hold the pace of the required production. It is precisely so in a business office where a large amount of work must be turned out within specified hours.

**Accuracy and
Speed in
Taking
Dictation**

After emphasizing this point that the stenographer must be an excellent mechanic in her line, let us add that if she is only this she will never go very far. Even the lower ranks of this vocation have come to require many of the qualifications of the professional worker: a broad, intelligent grasp of many subjects, adaptability and quickness to perceive opportunities to serve the employer or client. One reason for the overcrowding of stenography with girls who drift from low-paid place to place is that young people, their parents, and teachers often wrongly suppose that this branch of office work consists merely in taking notes from dictation and running a lot of words off on a typewriter. The stenographer who is worth any considerable salary can take responsibility as well as dictation. She knows how to put words together herself so

**Mental
Qualifications
of Successful
Stenographer**

that they will make a favorable impression on the people with whom the office does business.

The "smart" girl who really knows something is the one who, if her stenographic speed is right, will make her way in this occupation. There is almost no place in business for the "stenographic automaton" tirelessly manipulating her fingers but with a minimum expenditure of mind. "If a girl hopes to succeed in stenography," says a bulletin of the Girls' Trade Educational League of Boston, "she must be possessed of intelligence, good judgment and common sense. She must have good eyesight, good hearing and a good memory. She must have good perception and be able to concentrate her attention completely on any matter in hand. In addition to these requirements she must be neat in executing written work and accurate to the last degree. It is absolutely necessary that she have a good education. No one has a more practical use for a thorough knowledge of elementary school subjects than a stenographer. She must be a speller and be practically familiar with the rules of good grammar and punctuation; nor is arithmetic of little importance, for she cannot tell when she may be called upon to turn it to account in connection with her work."

Another writer calls attention to the fact that a competent stenographer receives about the same pay as a high school teacher of English subjects and urges that she ought not to be satisfied with inferior attainments. A business man says: "A good stenographer is one who can spell and punctuate and who is generally well informed. Shorthand without an English education back of it simply qualifies some young woman to be an aggravation, a thorn in the flesh, to busy people. We have just discharged a stenographer who in transcribing a recommendation of our head chemist made the statement, 'He is a thinker,' read 'He is a thin cur.'" Writes a well-known lawyer: "Thorough drill in English composition, business forms and customs, and legal papers, with a gen-

Good Education
Absolutely
Essential

Shorthand
Without an
English
Education

eral knowledge of English literature and history, and familiarity with the elements of the sciences which are such an important factor in the business of to-day, are as necessary to the stenographer as ability to take dictation and manipulate a typewriter."

It may be seen, therefore, that when a girl is too dull and limited in intelligence to follow the example of her sisters in becoming a teacher, "the family" should not assume, as very often happens, that they can at least make a stenographer out of her. Such a girl, especially if strong and well, may fit into some kind of manual or mechanical work. She should not waste her time, or a worried employer's, with efforts to be a stenographer.

Unfitness of
the Dull-witted
Girl for
Stenography

Many high schools now have admirably planned commercial courses. These cover not only stenography and typewriting but a variety of subjects useful to people in business life. The young graduate of such a course may do well to enter for a short time a typewriting school or the practice department of one of the typewriter concerns to acquire a better speed than is possible in schools with large classes and limited opportunities for practice. If a graduate from the classical or literary department of a high school or academy, the aspirant should get at least a year's instruction at a good business college. The tuition will cost about \$150; the effort to obtain this special training should by all means be made. At the end of this special training a girl should be able, especially during the summer vacation season, to secure chances to substitute, and within a few months she should hold a regular position with salary of about \$10 a week. How much farther she can go will then depend on herself. Stenographers' salaries are higher in the large cities than in small towns. For ordinary business stenography, with no secretarial or managerial duties, \$15 is considered a good salary. A certain insurance company with a large force pays all its stenographers, except those in supervisory positions, \$800 a year, the theory seeming to be

Technical
Training and
Salary

that this is a fair price for routine work and that as a woman becomes worth more she will either rise from the ranks or obtain better paid employment elsewhere.

One good chance for the ambitious stenographer is to become office manager and direct the work of stenographers, filing clerks, office boys and others. This formerly was distinctly a man's position, but it now sometimes falls to the head stenographer to fill.

There is an increasing demand for highly trained, intelligent young women who can qualify for a combination of stenography with a secretaryship. The stenographer-secretary takes charge of the business and personal affairs of a business or professional man, relieving him so far as possible from all the little irritations, vexations and disturbances that prevent clear thinking and quick decisive action. "The duties," writes Miss Alice H. Grady, secretary to Mr. Louis D. Brandeis, in "The Business Encyclopaedia," "will vary with the business or profession of the employer, and may cover activities ranging all the way from filling an ink well, adding a column of figures, making appointments, interviewing callers, answering letters of invitation or figuring a percentage, to reporting a legislative hearing. In some offices her duties may include the ordering of office supplies, the filing and indexing of correspondence and other important papers, books, pamphlets, maps, charts, etc., for future reference—the test of good filing being, of course, the ability to find a document immediately when it is wanted."

The stenographer-secretary must, of course, be systematic, more than ordinarily intelligent and well informed, truthful and tactful, cheerful and enthusiastic. Such a woman can make herself almost indispensable to a man occupied with important affairs. Her salary will not be less than \$1,000. In exceptional instances salaries of three times that amount are reported. The work is nervous and exacting—the more so as many leading business men lack the very habits of system and order which they

Opportunities
of the
Ambitious
Stenographer

The Envidable
Position of the
Stenographer-
secretary

value in the employee and are often irritable in consequence of their own blunders. Yet the large salary, generous vacations, acquaintance with fine, forceful people, and the attractive physical surroundings that are possible in this occupation give a greater incentive than most workers have for taking care of health and strength. Average terms of employment for the secretary are long. Once the head of a business or professional office has become more or less dependent on the efficient woman in his private office he will make every possible sacrifice or concession in order not to lose her. This vocation is by all means the one to which the able, gifted girl beginning the study of stenography should look forward as a goal of achievement. In some schools and colleges secretarial courses have already been provided.

A Vocation
for the Able,
Gifted Girl

Men stenographers are in a minority. There is, however, considerable stenographic work for which men, on account of their greater physical hardihood, are better adapted than women. Such, especially, is verbatim reporting of court or legislative proceedings, in which it is often necessary to work at top speed for hours at a stretch. This work requires tremendous endurance and well-controlled nerves. It is very well paid, but those in it usually have to retire in early middle age when they cease to be able to keep the pace. Business men who need a stenographer while traveling usually advertise for a young man. There are few openings for men stenographers in office work. But a man has at least an equally good chance with women competitors in opening a public stenographic establishment, especially if to stenography and typewriting he adds equipment and manual dexterity for reproduction of business documents through the mimeographic processes.

Men
Stenographers

Bookkeepers and Accountants

The keeping of books of record is one of the oldest of commercial occupations; it to-day gives employment to a

great army of men and almost equally as many women. Supervising the work of bookkeepers are the professional accountants, whose vocation is one of the most promising in modern business.

There are only two reasons, as a general principle, why an ambitious young man should take up work as a bookkeeper. One reason is that the people who work over the books of a concern have an exceptionally good chance to learn the details of the business. The young bookkeeper may hence expect to rise, especially if to his knowledge of system he adds salesmanship, into an important managerial position or to the ownership of a business. The other legitimate reason for becoming a bookkeeper is that the work puts one in an admirable position to study the great and growing profession of accountancy. For men who lack the energy or initiative to work upward in one or the other of these directions the bookkeeper's job is liable to be a "blind-alley" occupation, one of endless routine and repetition and with compensation kept low both by the competition of young women and by the natural tendency of all business firms to economize at "the expense end."

For women the occupation is in some ways rather better adapted than for men, if it is considered as a calling by itself and not as a stepping-stone to something better. While the salary is not large it is sure and regular, and that is one of the principal requirements for many unmarried women. The bookkeeper's desk demands just the same neatness and orderliness, the same faithful performance of routine tasks, that contribute to the smooth running of a home or an institution. In many businesses, furthermore, a combination of stenography and bookkeeping is now considered valuable. It often happens that a girl who has started as stenographer at a small salary finds that she can add to her compensation by helping on the books. Thus, although bookkeeping was until recently regarded as a man's occupation, women have become very

Prospects of
the Ambitious
Young Book-
keeper

Women as
Bookkeepers

numerous in it. The very general substitution of card systems for the heavy ledger of old is a minor reason for the new success of women in this field. Physical strength is no longer required in handling the records, and feminine deftness is very effective in dealing with cards.

The boy or girl who will make a good bookkeeper is proficient in arithmetic and spelling, writes a good business hand, has considerable power of concentration and sustained effort. The youth of a quiet, studious disposition who does not mix readily with his fellows often finds himself anchored at the bookkeeper's desk, though there is fear that his lack of push will always keep him there. For those of more enterprising nature a short term of bookkeeping is good discipline as well as preparation for larger work.

**Qualifications
and Training
of the
Bookkeeper**

The prospective bookkeeper should be trained either in the commercial department of a high school, at a commercial college or at one of the institutions which prepare for civil service. The instruction should include as many as possible of the subjects of commercial education, for the bookkeeper who is to take advantage of the facilities of a business concern's accounting department should be a broadly educated person. A knowledge of shorthand and typewriting should be included. This becomes each year more important, as the typewriter manufacturers are achieving great success with their bookkeeping typewriters.

**A Knowledge
of Shorthand
and Typewrit-
ing Necessary**

Even after suitable education the young man or woman must necessarily be one among many applicants for bookkeeping jobs. This occupation is rather crowded. It is regarded in many social circles as highly respectable. Consequently the candidate may have to wait weeks or even months for the first chance to earn a dollar. There is, however, a vast amount of accounting to be done, and a persistent person will secure a position in time.

Once occupying a bookkeeper's chair, the young person finds that in addition to his school knowledge of the

**Intricacy of
Accounting
Operations**

principles of double entry bookkeeping he constantly needs a clear head and determination to be sure he is right before going ahead. The science of credit and debit is very simple in theory, but the accounting operations of a modern business, with their elaborate analyses of production cost, "burden" and selling expense, look profoundly intricate to the newcomer. If after a little acquaintance he becomes greatly interested in the accounting schemes themselves, it is probable that he ought as soon as possible to go to an evening school of accountancy. If he is much more curious about the people and goods behind his figures, then his plan should be to use his position to learn the business.

An accountant may be described as a person who prepares, investigates or audits schemes of bookkeeping. He should, of course, be able to keep a set of books in a practical efficient manner; otherwise he would be unable to criticise the work of bookkeepers. His knowledge, however, must extend far above and beyond that of systems of double and single entry. He has been called a "business doctor." His work is to make bookkeeping genuinely helpful to the people who pay to have it done.

**Duties of
an Accountant**

Accountants are generally divided into three classes: official, those employed by national, state or municipal governments to supervise systems of bookkeeping; public, those who maintain independent offices for consultation by anybody needing their services; private, those employed by individual firms or corporations to make their bookkeeping as effective as possible. In each of these directions are excellent opportunities for good compensation and stimulating employment. Official accountants, or auditors, as they are often called, who are employed by governing bodies, have rather smaller salaries, as a rule, than they could earn in private life, but they are well paid by comparison with other public servants and they are less liable to be displaced by political changes.

The successful public accountant or consulting auditor

is able to charge high fees for services, the value of which is generally recognized among business men. When a new business is started he may be called in to install a system of bookkeeping such that the head shall know every morning by a glance at a few figures on a single sheet of paper just where the business stands. Often the accountant is summoned when a business is felt to be in dangerous condition and nobody knows just what is the matter. He analyzes costs of carrying on the business and causes of waste and inefficiency and, if the case is not hopeless, introduces new bookkeeping devices by means of which the managers can keep closer track of their situation. Routine auditing, such as every accountant may be asked to do, consists in professional examination of accounting systems to see whether they are being correctly and honestly kept. Many businesses periodically call in an impartial auditor who reports on what he finds.

**The Successful
Public
Accountant**

A concern of any considerable size, such as a department store or public service corporation, usually finds that it pays to engage a professional accountant at a high salary to supervise the recording departments. Such an officer is general in chief of an army of bookkeepers and filing clerks. He runs his department smoothly, efficiently and economically. He introduces adding machines, tabulators, bookkeeping typewriters and other mechanical helps just as fast as the conditions of the work permit. The heads of the business lean upon him for assistance in their large plans because he, more than anyone else, knows about the cost of doing things. For a live man whose special taste is for figures this is about the finest salaried position the business world offers to-day.

**The Sphere
of the Private
Accountant**

The accountant's profession is so new in this country that the requirements for entering it are less definite than for becoming a lawyer or physician. In some States nothing prevents any person from advertising himself as an accountant. Plain, routine bookkeepers sometimes assume the title because they think it sounds more imposing.

**Entrance to
the Account-
ant's Pro-
fession**

Professional accountants, however, are trying to secure general legislation that will establish the right to use the name. In England the legal requirements are rather strict. Some American States already have regular examinations entitling those who successfully pass them to be called "chartered accountants." Several universities have regular courses in accountancy, and many institutions that offer evening courses include this study. A boy without means for immediate education does well to connect himself as bookkeeper with a large concern whose records are supervised by an accountant. If he gains the interest and sympathy of his chief he will have help in the direction of his studies.

**Ideal Training
of an Ac-
countant**

The ideal training of an accountant is thus indicated by an expert: "Whatever the form of preliminary instruction, a prerequisite to being an accountant is a thorough understanding of mathematics and statistics. The ability to marshal facts and figures in written form comes first. The accountant, however, who also speaks well has an advantage, for he is frequently called upon to make explanations before boards of directors or meetings. Public affairs he should understand well enough to be acquainted with the civic movements of his time. Of foreign languages he is most likely to need French, German and Spanish. The ideal preparation is that of a good high school supplemented by three or four years of college work, with special attention to commercial subjects. After finishing school he ought to spend at least three years in a public accountant's office."

The Actuary

An allied profession that gives employment to a considerable number of men who are expert in mathematics is that of the actuary, whose work is to make calculations of averages for insurance companies and other organizations. This work is very well paid for those who are able to meet the conditions. Only those who have always been remarkably apt in both written and oral mathematics should consider actuarial work at all.

Miscellaneous Office Positions

Various other avenues of employment which may lead upward in commercial life exist in business offices, particularly in the larger ones. System is so important in running a business that the filing of papers, letters and documents is often not given to the stenographers to do, but is entrusted to a special filing clerk. Such a person is likely to be lower-waged than the stenographer whose time she is supposed to save. One, however, who familiarizes herself with modern card and filing systems may become so indispensable as to command a good salary.

The Filing Clerk

The letters that go out from a business office may do so much either of good or harm that the vocation of correspondent is beginning to take the rank of a commercial profession. More and more business heads are discovering that not everybody can dictate letters which will make friends for the firm and that it pays to employ a level-headed, tactful person who has a good command of English to devote his whole time to letter-writing. Business communications are ceasing to be the bald, crude effusions they once were, filled with senseless repetitions and with a jargon that people of good breeding have always regarded as vulgar. The ideal correspondent is college-bred, practical, possessed of considerable selling sense, and very much of a diplomat as well as literary artist.

The Vocation of Correspondent

The occupation of collector and the profession of credit man are both undergoing a remarkable development. The collector is to the credit man about as the bookkeeper is to the accountant. The credit man superintends the collection of bills and accounts due to a business. His is really expert work, demanding a thorough knowledge of the science of credit, a good general understanding of business laws and commercial customs, and very great ability in handling all sorts and conditions of people in their most unpleasant moods. The collector's job is not to be regarded as a desirable permanency, except now and

then for an elderly man who can find nothing else to do. A spirited young man would not want to remain a collector with probable earnings of from \$5 to \$25 a week all his life. The work, however, gives excellent preparation for the higher vocation of credit man—one that is far from being overcrowded with the competent.

Regular courses to prepare young men for this work are only just beginning to be talked of, so that in most places a boy who has begun as a collector will have to develop himself by independent study and observation. If he works under a good credit man he will learn much by personal precept and example. He should acquaint himself with the many books that have been written on credit and banking, and he may profitably take at least part of an evening law school course. In smaller businesses there is considerable demand for the person who can combine the duties of credit man and chief accountant.

The qualities that especially mark a good credit man are intuition, or ability to make shrewd guesses, courtesy and tact. A chance remark of a customer, rightly interpreted by the credit man, will often enable him to save his firm hundreds or thousands of dollars by cutting off the credit of a customer whose affairs are taking a turn for the worse or whose personal habits are becoming dangerous. Unfailing courtesy is one of the credit man's greatest assets; he must be firm in requiring customers to live up to their agreements and still he must not make enemies of them. One of the chief difficulties of his position is to be a diplomatic director of a force of collectors, many of whom, in their anxiety to get money due the firm, are likely to be rude or violent in their methods. The credit man is paid a good salary to get the money without losing the good will.

To the office boy every avenue of the business is open theoretically, and often practically. As somebody has well said, his "stand is at the cross-roads leading to all opportunities." The probability, nevertheless, that the

The Collector
and the
Credit Man

Qualities of
the Good
Credit Man

youth who holds this job will make the most of himself and find his way into the department of the business for which he is best fitted, is sometimes overstated. The temptation for the office boy to drift along year by year without serious effort to learn anything useful is very great. In many establishments he is worked up to the limit of the strength of a growing boy, and has little energy or ambition left for evening study. The job which he took at \$4 or \$5 a week when he was fifteen may prove by the time he is of age to have landed him nowhere at all. He would much better have continued in school, where under more careful guidance than most busy business people can afford to give a youth, he would have at least acquired the elements of an occupation with a future. Another office boy, on the other hand, in the same position, whose performance of routine duties may be no better than the former boy's, will in the same time have got into the spirit of the business organization and before he is twenty-one will be headed up the line toward one of the better-paid and more responsible positions.

The Outlook
for the
Office Boy

If, therefore, in a family circle it is undecided whether a fifteen-year-old boy should be still kept in school at considerable financial sacrifice or should take a place as office boy, one of the first questions to ask is whether the lad has shown himself alert, observing and ready to go ahead without being watched or urged. If he is of this nature it may be safe to allow him to go into business at an age when most young fellows should still be in school. If a high school graduate, and still more if a college graduate, takes work as an office boy it is presumed that he does so with the expectation of using the position merely as a stepping-stone for quickly rising into one of the departments of the business.

Deciding the
Boy's Career

So many businesses have been injured by careless, dawdling or discourteous office boys that office managers are becoming much more careful than they once were in the selections they make. For every vacancy there are

**Choosing the
Office Boy**

generally many applicants. The wise manager remembers that a slovenly, stupid boy may, by discourtesy to a customer or neglect to stamp a letter properly, cost the firm more in a day than his salary amounts to in a year. The manager therefore chooses a youth who looks as if he would be both willing to work and capable of using his intelligence. If the successful applicant has these necessary qualities, yet lacks ambition and initiative, he may be kept on year after year, occasionally granted a "raise" of a dollar a week, until he presents the pitiable spectacle of a man of twenty-two or twenty-three doing a boy's work and with no outlook for anything better. Fortunately a considerable percentage of the boys picked out by a competent office manager will be of the kind who can take advantage of the opportunity to observe how the business is conducted and to make friends with the people engaged in it. Often it happens that when a vacancy occurs and the head of a department does not know where to look to fill it, he remembers that the head office boy, who is strong, willing and obliging, has been carrying on evening studies that would help to fit him for work of the kind in question. The ambitious youth is then given a chance for which he is more than likely to prove equal.

The Office Girl

What is true of office boys is true of office girls, including the private branch exchange telephone operator. These are reasonably good occupations for the capable girl whose circumstances make it necessary for her to go to work early. Yet for many these jobs lead nowhere. Telephony has many openings for cool-headed, self-controlled young women, and one of these is the manipulation of the private switchboard. The salary, nevertheless, is generally below that of stenographers, and the work is not, in and for itself, a preparation for anything else.

In all office work the employers' demand, of course, is for willing workers who do not watch the clock and who expect to be rated for what they accomplish and not for

their social graces and family connections. One of the silly remarks one sometimes hears from a young office employee is, "I am paid for what I know, not for what I do." That observation is often a sign that the speaker is not really earning even the small salary which he, or she, is receiving.

The chances to advance and rise to a better position in the business are many times greater for the office boy than for the office girl. Faithful and conscientious work and length of service are far less likely to increase her pay check. Therefore, the young girl, who was unable to secure training in some skilled occupation and at an early age was forced to take a job at general office work, must have recourse to the night school and devote her leisure to self-improvement. She must forego the seductive delights of the dance hall and the moving picture theatre, while she continues her education and acquires technical skill in some branch of industry. For the girl, general office work is a "blind-alley" occupation.

**Finishing Her
Education**

CHAPTER X

MERCHANTS AND MERCHANDISING

The Selling
Sense Absolutely
Essential
to the Merchant

THE goal of the ambition of many young men and young women who enter business life is to be an independent merchant of some kind. That this goal is unlikely to be realized unless the aspirant develops powers of salesmanship we have already seen. The merchant, whatever his particular line, is a seller of goods. He is an expert in getting the things made by the manufacturer into the hands of the people who can use them. By the nature of his occupation he is presumed to be clever at buying articles at a price which will allow him to sell at a profit. If he lacks the selling sense he is in the wrong occupation, no matter how proficient he may be in management of office systems or details of lighting, heating and ventilating a store. He can always employ specialists to look after the mechanical side of running a commercial establishment. His first interest is in buying and selling at a profit.

The Great
Merchant a
Leader of Men

It is not enough, however, for the merchant to be enthusiastic in promoting the distribution of commodities—in making goods move, to use his own phrase. To be successful on a large scale, he needs, in addition, to have the qualities of a leader of men. Otherwise he would better either remain a salesman, directing his own work but not undertaking to manage the labor of others, or, if he must be “in business for himself,” rest content with conducting one of the smaller shops in which the proprietor does most or all of the work himself. These latter opportunities exist in spite of the growth of mammoth establishments employing thousands of people. In the business centres as well as in the suburban districts of great cities,

in smaller towns and particularly in the country, are thousands of stores which can be made to bring a modest success if the proprietor is by nature a shrewd trader and has a moderate working capital. Such a merchant often requires no more executive ability than is necessary to manage himself, a girl bookkeeper and an errand boy. In a country store he is frequently alone. To be the managing head, however, of a large mercantile establishment demands great gifts of generalship. The boy whom one would select as likely to become a leading merchant not only has, ever since he was a little fellow, been a good trader but has been sunny, companionable, popular and always at the head of things.

A Trader and
a "Mixer"

The youth who by nature is thrifty and saving will, other things being equal, make the better merchant; though the day of the haggling, "skin-flint" trader is passing. George H. Lorimer, in his amusing "Letters from a Self-Made Merchant to His Son," tells of a grocer whom the community finally rode out of town on a rail. "Lem Hostitter, who kept the corner grocery in my old town, was probably the meanest white man in the State of Missouri, and it wasn't any walkover to hold the belt in those days. Most grocers were satisfied to adulterate their coffee with ground peas, but Lem was so blamed mean that he adulterated the peas first. Bought skin-bruised hams and claimed that the bruise was his private and particular brand, stamped in the skin, showing that they were a fancy article, packed expressly for his fancy family trade. Ran a soda-water fountain in the front of the store with homemade syrups that ate the lining out of the children's stomachs." This kind of merchant is almost everywhere being put out of business by the firms that try conscientiously to deal in honest goods at fair prices.

"The Meanest
Man in
Missouri"

Merchants generally belong to one of three classes: wholesale, commission and retail. These terms largely explain themselves. The wholesaler buys in great quan-

Three Classes
of Merchants

titles and sells to other merchants, not to the consumers direct. Commission merchants are specialists in buying or selling or both who act not for themselves but for others who commission them to act. Retailers buy as a rule from wholesale or jobbing houses and sell to consumers either over the counter or through the mails. Large retail establishments often do away with the services of the wholesaler or commission merchant and buy direct from the manufacturer or even, in some instances, engage in manufacturing on their own account.

THE DEPARTMENT STORE

A Remarkable
American
Achievement

The department store, the great retail establishment in which a person can buy practically anything or everything he is likely to need, illustrates so much that is common to the running of all the smaller shops that it may be taken as typical of retail business to-day. The best and most approved methods of handling groceries, meats and other edibles, clothes, shoes and other articles to be worn, house furnishings, sporting goods, books, stationery, toys and almost innumerable other kinds of goods, are to be found under a single roof in the well-conducted department store. A very large percentage of all the retail trade in our cities is now done through these establishments. In them more and more of our boys and girls learn and will learn the elementary lessons of salesmanship or office work. In their marvelous completeness they represent one of the most remarkable of American achievements, one that arouses the admiration of many foreign visitors. In a long but very descriptive sentence an English writer, Wesley Briggs Phillips,* sums up some of their merits:

"The system that dresses the window with attractive goods, that provides the special bargains, that furnishes such a variety of goods comprising nearly everything that

*In "How Department Stores Are Carried on in America."

people use, that gives a courteous and agreeable service under all conditions, that provides a place to rest when fatigued, that enables shopping to be done under such favorable circumstances, that delivers all purchases promptly, and if a mistake is made in the selection or if for any reason goods bought are not satisfactory, presents no difficulty in their being exchanged or the money refunded; the system which does all this and more is not the result of accident or chance, but there is a vast machinery behind it all which directs and controls."

The chance that work in a department store will not prove a "blind-alley" occupation to the boy or girl entering it is steadily improving. Not so many years ago it was felt by his shrewder friends that a young man who went behind the counter of a large city store was condemning himself to a career void of hope or ambition, on a salary considerably less than the wage of a good mechanic. A girl, it was always feared, might in entering the store service be courting an even worse fate. Nowadays leading department stores make an effort to develop the educational side of their employees' work, to pay higher salaries to those who under guidance can make themselves worth more and to keep open as many avenues of promotion as possible. In such stores a young person who has good health and a high purpose does not find it hard to be respected and recognized in a substantial way. The prizes, the high-salaried, responsible positions, are too few for every employee eventually to reach one; but that situation does not apply to the department store any more than to most large businesses. A youth must take his, or her, chance of having enough ability to earn conspicuous success.

One advantage of choosing the department store service as a means of getting into business lies in the fact that a young person will not be allowed to start there at all unless judged by an expert in hiring boys and girls to be likely to do well in the work. This is very different

Outlook for
the Department
Store Worker

**Duties of the
Superintendent
of Employment**

from being put to work by the busy owner of a small store who may have very little ability or experience in sizing up candidates for positions. In many department stores a high-salaried officer gives his entire time to hiring and dismissing employees. As it costs the store a good deal of money to break in each new employee, the superintendent of employment is expected not to make the mistake of engaging people who must be dismissed in a short time because incompetent. He is accordingly not only particular about references, but he becomes very skilful in discovering during an interview with the applicant whether he is likely to fit into the scheme of the store. The chances are that the young man or young woman whom he hires has at least some of the qualifications for getting along in department store work.

The successful candidate is assigned to one of the four divisions of the store. These are respectively the merchandise department, selling department, advertising department and office department. Promotion in the first of these leads upward through various grades of buyers to the merchandise manager; in the second through head salesmanship and floor management to the position of store manager; in the third through the ranks of copy writers to the post of advertising manager; in the fourth through stenographic or bookkeeping work to the post of office manager.

**Department
Store Salaries**

Department store salaries are gradually advancing from the low levels of a few years ago, though for the rank and file they are not very high yet. What a boy in an Eastern city may look forward to in the selling department of a large store is about this: At the age of fourteen to eighteen he enters with a weekly wage of \$3 to \$4.50. After two years as store boy or stock boy he is promoted to an inspectorship with a salary of \$5 or \$6. Several years later he becomes a salesman, with a salary of \$10 to \$20 a week. Many men at forty-five and fifty are still in this position. The capable young man will

probably, however, before he is forty have been made floor superintendent at \$25 to \$30. Above that, if he has exceptional capacity, are several high-salaried positions in the store.

For women employees the line of progress is very similar to that of the men, with fewer open avenues of promotion. The physical strength of many saleswomen does not permit them to carry on evening study, after a hard day's work in the store, and thus to fit themselves for the places requiring high intelligence. About seventy per cent of the employees of the average department store are women and girls. Department store work is very trying to the physique; although many employees like it because of the fascination of the moving, changing crowd. In low-grade establishments the air is generally bad, but in the better type the ventilation and sanitation are good, and every provision is made for the comfort and welfare of the employees.

**Women
Employees'
Chances of
Promotion**

To be properly competent behind the department store counter, as shown in the Vocation Bureau's booklet, "The Department Store and Its Opportunities for Boys and Young Men," the employee must possess tact, self-control, mental alertness, faith in himself and loyalty to the firm. Teachers of salesmen lay stress on these points:

**How to Be
a Competent
Department
Store Salesman**

1. The clerk should be perpetually watchful in the care of the stock entrusted to him, for a slovenly, ill-arranged counter repels trade.

2. The approach to a customer should be cordial and friendly without being presuming or over-intimate. "Excessive cordiality is a handicap at the outset."

3. Knowledge of the merchandise handled and ability to present its quality points effectively to the customer.

4. Ability to close a sale, involving use of a faculty for saying just the right thing at the right moment.

Miss Diana Hirschler, of New York, an expert in the training of retail saleswomen, says that in the depart-

Training of
Department
Store Sales-
women

ment store all selling should be done in accordance with three principles: (1) a study of the saleswoman's own personality and development of its attractive side; (2) study by the saleswoman of the particular kind of goods she sells in order that she may speak as an expert; (3) knowledge of human nature such as to make it easy to win the confidence of various types of customers. As confidence-building attributes Miss Hirschler insists on cleanliness of the person, appropriate dress, correct poise of the body and manner of approach, indicated in a friendly but not presuming forward motion, a courteous smile and voice of clear, distinct quality with pleasant cadence.

She also gives* a practical scheme by which the saleswoman can tell at a glance whether her customer belongs to the self-reliant, sensitive and timid, precise and rigid, highly practical, artistic or emotional types of humanity. The manner of treatment of each type has its peculiarities. A firm, precise customer should be served quickly and with no attempt to persuade or allure. The saleswoman, on the other hand, must be skilful at leading the timid, shrinking customer to make up her mind in a manner to the store's advantage. The very great importance of the saleswoman's looking after her own health and cheerfulness is emphasized.

The Art of
Department
Store Selling

There is really a great deal to be said about the art of department store selling which makes it evident that this is proper work for well-trained, intelligent and very human men and women. It bids fair to cease to be an occupation into which all sorts and conditions of people can drift, because they happen to have prepared themselves for nothing else and feel themselves above coarse manual labor. As this work demands more and more expertness on the part of sales people, the salaries paid to them will gradually advance.

*In "The Art of Retail Selling."

SMALLER RETAIL STORES

The growth of department stores, as has been said, has not done away with smaller retail shops, each handling a single specialty; it has simply prevented these from multiplying quite so fast as they otherwise might have done. For reasons just implied, however, it is better for a young person who wants to become an efficient inside salesman or saleswoman to be connected for at least a few years with a great department store, where there are classes in salesmanship and expert supervision of the selling at the counters. Yet that does not mean that the salesman should necessarily continue all his life in the big establishment. The efficient clerk in a small retail store may have advantages and opportunities that would not come elsewhere. Many sales people, of course, will continue for a long time to come to get their start without special training of any kind, by simply securing a job because a merchant likes the applicant's looks, or belongs to the same church or lodge with the applicant's father.

Opportunities
in the Smaller
Retail Store

Retail establishments are so many that it would be hopeless to try even to hint at the opportunities and defects of each kind. Some are becoming less and less attractive to enterprising and ambitious young people on account of the competition of department stores and mail order houses. Others seem to be holding their own remarkably well against this competition. Some seem as a rule to be in the hands of proprietors who have modern ideas of looking after the health and comfort of their employees. Others appear to be mostly in the hands of merchants who think that the movement for short hours, hygienic surroundings and adequate education of sales people is simply a twentieth century fad. Some retailing lines have as yet been very little studied by experts in vocational guidance while in others the conditions are well known. But before many years have passed it may be expected that all the principal retail

A Vocation
Little Studied
or Classified

trades will have been carefully investigated and the results published in convenient form. In the meantime it will pay a boy or girl who has a chance to go to work in a local retail shop, to inquire as thoroughly as possible not only as to the personal character of the employer, but into the experience of men and women who have been connected with other establishments in the same line.

The kind of knowledge a young person ought to try to secure about any retail trade which he considers entering, may be illustrated by the case of the grocer's business which the Vocation Bureau has specially investigated. This is one of the wide-open occupations. Without special education or training of any kind a boy may get into it for a try-out. It is a very big business, for more than forty per cent of the American family's income is spent on food, and the grocer, especially since he now very extensively handles meats and green vegetables, is the principal factor in distributing food commodities. There are boys who may very wisely be advised to take the first chance that offers to drive a grocery wagon. There are others for whom it will spell lifelong financial tragedy to run the risk of still being at the age of forty-five or fifty a \$15 a week grocer's clerk.

The physically strong and mentally awake young man, whose family circumstances will not permit of extensive education, may find in the grocery business a fair field and no favor. The goal of his ambition is either ownership of a store or chain of stores, or development of expert knowledge such that the errand boy of to-day may be a high-salaried department head ten years hence in one of the larger grocery establishments. He should start with full realization that he must save money from the first and otherwise prepare to buy a business requiring more and more capital each year. He should also know that while a small retailer may do a good business through having a favorable stand and through rendering efficient service to his customers, he must all the time

**The Opening
in the Grocery
Store**

**The Prospects
Ahead of the
Young Grocery
Clerk**

face the competition of very low prices set by the department stores and the "grocery chains" which operate in nearly all cities under a single management, purchasing their stock in vast quantities for cash. He should understand that if he does not become an independent proprietor, his best chance is to connect himself with one of these bigger systems in the grocery business, where he may become a specialist either as store manager, head accountant, collection manager, credit man or advertising manager. The danger of the occupation, he should remember, is that of sinking into a dull and hopeless routine. The hours are long; the work, especially for the inside men who must stand on their feet in one narrow space and with little stimulus from fresh air, is very wearing. Unless a man is robust and full of vitality he will have little energy left for evening study or other occupation designed to improve his condition. His salary, \$8 or \$9 when he is brought in from the delivery service to stand behind the counter, will be raised from time to time, but he will be lucky if it ever goes above \$20. Notwithstanding the fact he gets a large discount on his own groceries, the grocer's clerk, especially if he has married young and has to meet the expenses of a growing family, often becomes a badly discouraged and listless man. This liability of never rising in an occupation where no provision is made for the worker's old age should always be set before a boy of fifteen or sixteen who is eager to take a job with the nearby grocer.

**The Danger
of the
Occupation
as Grocer's
Clerk**

What is true of the above retail trade is more or less true of most of the smaller businesses of distribution. In any of them the born business man will rise to leadership; him nothing can keep down. Where opportunities exist for special training in expert buying or selling even the person who lacks qualities of leadership may come to command a good salary. But the general run of retail clerks are likely for a long time to come to be less well paid, while at the same time obliged to keep up a better

**Poorly Paid
Calling**

appearance, than the corresponding grades of producers in manufacturing establishments.

BANKS AND BANKING

The Function of the Banker

The vast business of distributing the world's goods is carried on through the medium of exchange known as money and through various paper certificates of indebtedness known as bills of exchange, drafts, promissory notes, stocks, bonds, mortgages and other securities. What these and similar terms mean is known to every schoolboy who has mastered the sections of his arithmetic that are devoted to interest and percentage. The banker is a merchant who buys and sells money and other instruments of credit.

Because money is so vital in the conduct of human affairs the banker's calling is among the most important of occupations. In all civilized countries, indeed, the power of the bankers, when they are united, exceeds that of any other single group of men. They often have commanded kings, presidents, legislators, educators, merchants, mechanics, everybody.

Mental Training and Discipline of the Bank Clerk

The mental training and discipline that a young man may secure in a well-conducted bank is so valuable that he can frequently well afford during the early years of bank service to work for small compensation. Nowhere else in the business world are there more incentives to become a model of right living—to lead the systematic, orderly and efficient life. To many a young man a few years in the teller's cage offers almost the equivalent of a liberal education.

There is no doubt, nevertheless, that many boys get into bank service, and stay there, who ought to be somewhere else. Just where they ought to be cannot always be told offhand, but as a general statement it is true that the qualities of faithfulness, accuracy, system, orderliness and high personal integrity which are common to most banking men will often command a higher reward in



CONTINENTAL AND COMMERCIAL NATIONAL BANK. (CHICAGO)

other professions and occupations than in banking. The bank attracts so many young men having these routine qualifications that the scale of compensation for clerical service is kept rather low.

The ideal candidate for banking is a youth who combines faithfulness and integrity with the selling instinct and natural leadership. This is an uncommon combination; that is why great bankers are rare. At least the boy who is going into banking ought to have some of the traits of the salesman; he will need these even to rise out of the class of clerks and become a bank officer. It must always be remembered that the bank's prime business is that of buying and selling certificates of value. One of the classic instances of a banker's alert salesmanship was the use by the Rothschild firm, the greatest bankers of Europe, of carrier pigeons during the Napoleonic war by means of which they often got the first tidings of battles and were enabled to buy or sell in advance of the commotion that would be raised in the stock markets.

**Qualifications
of the Success-
ful Banker**

To qualify for the routine work of the bank, a boy should enter between the ages of sixteen and nineteen. "Boys should be gentlemanly, neat-appearing, intelligent, honest, business-like, and able to concentrate their minds upon their daily work and to keep silent in regard to the bank's business when outside the bank," says a publication of the Vocation Bureau on Banking. "The ordinary high school education is the general requirement for banking. Some boys enter the business without completing the high school course, but are consequently often unable to make proper advancement. Courses in business schools are desirable, and one should have fair training in mathematics and bookkeeping and be a good penman. In one bank investigated, having one hundred and ninety-five employees, there were but three college graduates, one being the cashier. Banking men wish that this condition were otherwise, but know that it is

**Educational
Requirements
for Banking**

**Qualities
Valuable in
Banking**

best for those who enter the occupation to do so during their minority." Arthur B. Chapin, former bank commissioner of Massachusetts, writes that "a poor writer will not be successful in a bank, and unless one is accurate in addition, subtraction, multiplication and the figuring of interest and discount his promotion will not be rapid. While ability to work rapidly is not so essential as accuracy, the boy who can work both accurately and rapidly will forge ahead much faster than the one who cannot qualify in both particulars. Good habits and neat appearance, together with courtesy, are also essential to success. The officers of a bank are quick to appreciate the young man who is willing to work and who makes a good impression."

**Order of
Promotion of
the Bank Clerk**

Banks are of various kinds, such as national, state and savings banks, trust companies, building and loan associations or co-operative banks, and private banking houses. The grades of clerical work may differ somewhat according to the type of the particular bank. But in a typical American bank a boy starts as errand boy at \$4 or \$5 a week. He is promoted to be a messenger at \$6 a week, or \$300 a year, his salary increasing, if he proves satisfactory, at the rate of about \$100 a year. He may next become a statement clerk, entering and balancing the checks and deposits on the monthly statements rendered to depositors. Thence he may rise through check lister to be assistant bookkeeper and then bookkeeper. A further upward step makes him assistant receiving teller, next receiving teller, and finally paying teller. The tellerships represent the top-notch of the bank's clerical work; any promotion above that is into the class of bank officers.

Bank clerks in a large city are fairly well paid, though they are often at a disadvantage in comparison with their business friends of similar age, experience and social standing. Check listers and bookkeepers receive from \$800 to \$1,000 a year. The average compensation

in the service is about \$1,100. The tellers, who must be live, responsible men of thirty years or more, are paid from \$2,000 upwards. The conditions of employment are almost always pleasant, with brisk, energetic work during short hours. There are few physical dangers except to the messengers who sometimes must carry large sums of money through the streets. The handling of money brings many temptations to the youth who has a dishonest streak, and, while the bank is very carefully safeguarded from chances for theft, it is better that a boy with this defect in his character be dissuaded from seeking banking employment.

Fair Salaries
and Pleasant
Conditions

The short hours of bank service give an ambitious young man an exceptional chance to pursue outside studies. If he decides to take his knowledge of banking practice into some other business or profession he will normally have both time and strength to take the requisite evening courses. If his ambition is to perfect himself in the banking business the American Institute of Banking, a national association of bank clerks, provides lecture courses and examinations in various subjects which a banker ought to know.

The bank clerk who, while still young, makes the most of his advantages, and who has the natural qualifications of a good business man, may expect to go on up through the grades of bank officers. These positions in a national bank of simple organization are assistant cashier, cashier, vice-president and president. Each of these officers is expected to have a wider range of vision on the big problems of banking than the clerks possibly can have. Each of the three assistants should be able at a moment's notice to do the president's work. What we have said about the necessity of good salesmanship in running a bank becomes very evident when you look at the president's duties. He should be a natural business getter. He sells the service of his bank to depositors and in return gets the use of their money. The friendship and re-

The Bank
Officers

**The Bank
President's
Duties**

spect that he and his staff command in the community help in the competition with other banks for deposits. The president, at the same time, must have the instincts of a shrewd trader. The people who come to him and want to borrow the bank's money are very often as anxious to conceal defects in the security they offer as is any horse dealer trying to hide the lameness of his nag. In order not to be caught by misrepresentations and to secure a fair bargain in letting out the bank's deposits, the president should have a wonderful knowledge of values of real estate and industries in his community. Stocks and bonds of every sort and description will be offered him as collateral for proposed loans; to decide what these are really worth he must be in constant touch with the world's great markets where such paper is bought and sold, and he should have intuitions of his own as to what is going to happen in the domain of values. A blundering, easy-going, over-trustful bank president can soon ruin a financial institution through his errors of business judgment. The mere fact that he was a valued clerk may not prevent him from riding fast to his fall after he has arrived where the buying and selling sense is the chief qualification.

**Work Big and
Stimulating**

The work of the officers of banking institutions is big and stimulating. It brings them into intimate connection with the leading people of their time. They receive reasonably generous salaries and have exceptional opportunities to invest any savings they make. Their position is one of power, responsibility and trust. It is one toward which the talented young business man of right habits and fine aspirations may well bend his utmost exertions.

BROKERS AND THE STOCK EXCHANGES

Closely allied to the business of banking are several forms of brokerage. A broker in general terms is a person who buys and sells for another, acting in that

other person's name. (If he buys and sells for another in his own name, without disclosing the identity of his client, he is called a commission merchant.) The funds through which brokers' operations are carried on are ordinarily obtained from banks. Brokers are of various kinds. The stock broker is employed to buy and sell stocks and bonds of private and public corporations. A note broker buys and sells promissory notes. An exchange broker arranges for exchange of money or the equivalent bills of exchange between foreign countries or separate sections of the same country. Insurance brokers investigate and purchase different sorts of insurance for clients. Real estate brokers deal in real property and also arrange mortgage loans, acting as intermediary between the borrower and the bank. Cotton brokers represent buyers and producers of raw cotton, attending to the details of an elaborate system of bills of exchange through which the southern cotton crop is financed and moved. There are numerous other kinds of brokerage business.

**Various Kinds
of Brokers**

The most prominent brokers, unquestionably, are those who handle stocks and bonds. These certificates of value are traded in like any other commodity. To facilitate their exchange there are established, in most large cities of the world, stock exchanges on the floor of which brokers buy and sell securities at the order of clients. On every purchase and every sale the broker gets a small percentage or commission of the amount involved. The business is very complicated. Some of the buying and selling, under the name of speculation, is little short of gambling, but much of it consists in solid trading in securities for investment. By far the greatest of American stock exchanges is that in New York, popularly known as "Wall Street," from the street in which our largest city's financial operations are conducted. The greatest stock exchange in the world is that in London, founded about 1773 and occupying a famous building in Threadneedle

**The Function
of the Stock
Broker**

Street, whose cornerstone was laid in 1801. Most of the Continental exchanges are called "bourses," from a French word meaning "purse." In all civilized countries great public and private debts are represented by stocks and bonds, and the business of buying and selling these is of ever-growing magnitude.

The qualifications of a stock broker are those of all engaged in brokerage. A young broker is helped by a knowledge of banking operations and general commercial practice. He must become familiar with the intricacies of the world's stock markets and be able to reason, on the basis of past experience, as to what stocks will do tomorrow and the next day. His mind must be agile and alert, capable of changing plans with catlike quickness, since the unexpected crisis is always arising in the stock market. Natural delight in trading is a great requisite. A man who does not enjoy being one of a roomful of shouting, excited traders will not go far in a stock broker's establishment. High integrity is especially essential in this business, for the stock broker is unfortunately exposed to serious temptations not to deal squarely with his clients. Entrance to the broker's calling is usually obtained through a clerkship in a brokerage house.

CHAPTER XI

RAILWAYS, AND OTHER MEANS OF TRANSPORTATION



COMMERCE, as we have seen, is dependent on transportation. Trade, as we know it, could not exist if goods must be carried on men's backs. Mankind long ago learned to use for overland transportation of commodities the power that is in tamable animals and for oversea transportation the force of the wind exerted against a sail. Within a little more than a century engines driven by the explosive power of steam and gasoline, or by electricity, have made possible the development of power-driven ships, railway trains, trolley cars and, very lately, of the aeroplane. The whole fabric of civilization is bound together by lines of transportation. In extending and maintaining these lines a vast army of professional, operating and mechanical men must at all times be employed. Transportation has come to be a term covering one of the world's greatest and most responsible forms of work. It is a kind of work which is almost entirely in the hands of men, since women lack the physical strength, endurance and hardihood demanded. Every business connected with transportation may be regarded, as a general rule, as a promising one for the right kind of people to enter, because the volume of trade between different commercial centres and different countries may be expected to increase faster than the world's growth in population for a long time to come.

**Vast Army of
Workers En-
gaged in Trans-
portation**

THE RAILROADS

If, nevertheless, one were advising a youth whose imagination had been fired by the bigness of the business

of transportation, one might well caution him to be very careful at what point he entered this great field. Almost any kind of professional work connected with railways or navigation has its good openings for men with special engineering training. Some of the operating departments, while subjecting their employees to dangers and hardships greater than in most vocations, are well paid and full of opportunities. Other departments have very few, if any, attractions for a well-born, well-taught young American.

**Electricity
Will Supersede
Steam**

Regarding the railroads, too, it is always to be remembered that their whole basis is pretty certain now to be changed in the next few years from one of steam to electricity, and that the present separation between electric, or "trolley," lines and steam lines is unlikely to continue. In the future, according to many engineering predictions, single electric cars will operate in thinly populated districts, running to terminals where they will be made up into trains and propelled, as trains now are on certain stretches of track outside of New York City, by means of great electric locomotives. If there is anything in this vision the electrical side of transportation is more promising than the steam side. This probability is not yet so apparent in the case of navigation, but that, as we shall see, is a line of industries that up to this time has interested comparatively few Americans.

**Broad
Engineering
Education
Desirable**

If then a brainy young man were to decide to make some branch of transportation his life work and had the means and inclination to prepare himself as thoroughly as possible, it would undoubtedly pay him in the long run to get a very broad engineering education, as at one of the technological institutions where he could study the elements of both steam and electrical engineering and of naval construction, with perhaps a little detailed study of practical railroad and electric railway operation. A high school boy who cannot look forward to this extensive technical education but who must begin to support him-

self at about the age of eighteen, should at least read what books he can on the history and practice of transportation and should seek advice from transportation men in his vicinity.

The vastness of the world's railway systems makes appeal to the imagination of many writers and many readers.* Across fertile plains and deserts, through mountain gorges and over quaking bogs, through tunnels miles in length and over viaducts that take the passenger out of sight of land, the far-flung lines of steel represent one of the greatest and most beneficent of human undertakings. In North America alone there are more than a quarter of a million miles of rail, and in many parts of the continent the development of the railways is only beginning. In the United States alone there are upwards of two million employees of the railroads. Theirs is a work, as a whole, to kindle personal and national pride.

Vastness of
the World's
Railway
Systems

But all that does not mean that any branch of railroad-ing should be entered for emotional reasons, without thought of the personal consequences to one's self. There are so many different occupations connected with the railway service that it is difficult to speak in general terms. Yet it is probably safe to say that up to this time, considering the responsibility they carry, and the risks which they take, railroad men have not been, and are not, particularly well paid or well protected against the contingencies of life and death. The employees, however, are so well organized in most branches that the wage scales constantly tend upwards, and more provisions are constantly being made for safeguarding life and limb, and looking after the old age that comes early for men in these pursuits. Yet railroad companies find it hard to get from the public the money needed to meet many of these demands, and improvement in the service is necessarily slow. These conditions a young man who

Considering
the Drawbacks

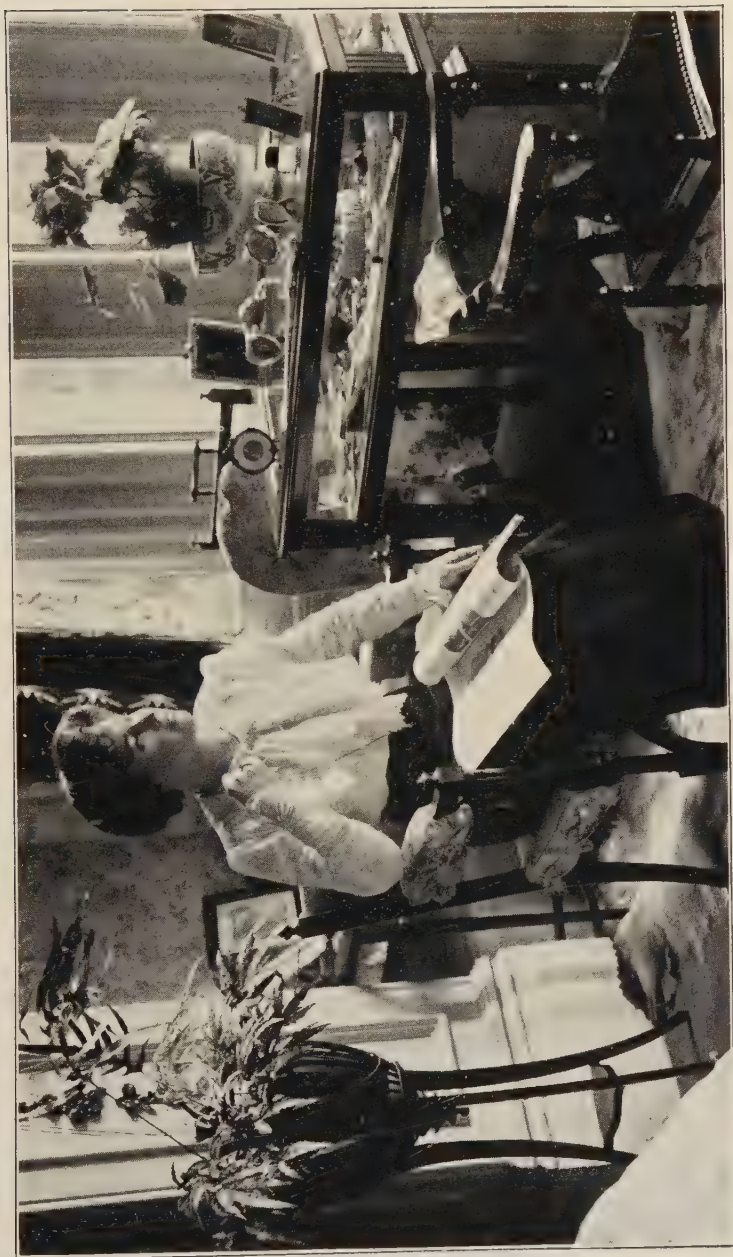
*Consult, for instance, Ernest Protheroe's "The Railways of the World." London, 1911.

thinks of entering any of the operating branches of railway service, should always consider: a wearing, nerve-exhausting life, with irregular hours, liability to accidents that are beyond his control, likelihood of having to choose between loyalty to his employer and loyalty to an association of fellow employees.* Employment in the clerical and financial departments of great railroads is not, of course, liable to the dangers and difficulties of the operating divisions. The rank and file of railroad clerks, however, receive comparatively small salaries and in the competition for promotion they are very likely to find that the best places are taken by graduates of the technological institutions or of the business administration schools of the universities.

A railroad is ordinarily divided into some nine departments, the names of which indicate their nature: executive, financial, accounting, operating, traffic (subdivided into freight and passenger), legal, engineering, motive power and rolling stock, purchasing. The requirements in these departments vary much, as do the conditions of entrance. Although courses in railway organization and working have been established at the University of Chicago, Harvard and elsewhere, there are few opportunities for the average young man to obtain a preliminary understanding of the whole field. There are many schools at which one may get a more or less practical knowledge of the work in some particular division of the railway service, as in steam engineering applied to management of the locomotive, in railroad signaling and telegraphy, in traffic management and other subjects.† The railroad Y. M. C. A. courses, given in several places, have been particularly helpful to many young men. A boy intending to make railroading his life work should as early as possible begin departmental studies of some kind.

*"The Life of Railway Men," by Frederick L. Feick. Chicago, 1905.

†"Education for Efficiency in Railroad Service," by J. Shirley Eaton, Washington: United States Bureau of Education, 1909.



THE HON. ELAINE JENKINS, DIRECTOR OF SWANSEA & HUMBLE RY. CO. (ENGLAND)

Perhaps the one characteristic that ought to be looked for in every candidate for any branch of railroading whatsoever is an acute sense of responsibility. From the president down to the humblest yardman or gate tender, the greatest of qualifications is an ever-present, never-failing faithfulness to the duty of the moment. In some occupations an able, resourceful man may be a very useful citizen in spite of occasional lapses in which he ceases to be careful and dependable. In railroading the one unpardonable crime is to be caught "asleep at the switch." Human lives by the hundreds and thousands depend on the wakefulness and faithfulness of all classes of railway employees. If the president and directors fall asleep at their posts there may not be money enough available to buy the rails and rolling stock that the company needs in order to give efficient service and prevent accidents, or to improve the condition of the employees to a degree that will keep them contented and therefore safe public servants. If a railroad lawyer overlooks some obscure statute in one of the States through which the lines run, he may give advice that will bring trouble with the public authorities, disastrous demoralization of the service and years of ill will on the part of the general public. A railroad accountant who is inaccurate when asked to figure all the elements of cost entering into some set of operations, perhaps thinking that it is sufficient to satisfy the employer and not caring to exert himself to discover the whole truth, may prevent the company from starting in on a series of improvements that would save the road from bankruptcy. As for the signalman in his tower, the train dispatcher playing with passenger and freight trains over a checkerboard a thousand miles square, the switchman under orders to turn a switch at precisely the right moment, the engineer directed to reach the terminal on time if possible and yet on no account to over-run a signal—everybody knows how a reckless, irresponsible person in any one of these positions may by a

**Supreme
Qualification
for Railroad
Work—Sense of
Responsibility**

**Their Careless-
ness Means
Death and
Destruction**

moment of negligence snuff out half a thousand lives and damage property worth far more than his salary would amount to in a lifetime.

If, therefore, it has been noticed that a boy's responsibilities do not weigh heavily on him, if though generally "smart" and energetic he is inclined now and then to drop all his duties for the fascinations of play or wandering, such a lad should not be misled into entering any form of railroad service. But if he has a live sense of responsibility he may, according to his other gifts, find useful employment and perhaps eventually high salary and honor in some particular branch of railroad work for which he is fitted. The requirements, in general, of the executive, legal and clerical divisions are those of business life and the professions. Much of the work at terminals, stations and on the road must be done by men who have had mechanical training. Those in the critical positions, such as on the engine and in the signal towers, need in addition to manipulative ability a very practical kind of imagination—the sort that quickly discerns a possible cause of trouble and meets it before it arises.

To try to say just what railroad men are paid would be practically impossible for the reason that new wage scales for certain sections of the country are so frequently adopted by agreement between the railroads and the unions of employees. The locomotive engineers are among the aristocracy of the mechanical employees, earning \$5 a day or more. Their firemen get about half as much money. Among the trainmen conductors stand at the head, being essentially on a level with the locomotive engineers. The baggagemen and brakemen rank about with the firemen at the other end of the train. Some idea of the daily wages of other classes of railroad employees may be gained from a wage scale adopted in the Eastern part of the country, if it is remembered at the same time that these scales are changed frequently and that the tendency is upward: electricians, \$2.75-3.00; assistant

Other Qualities
Needful in the
Railroad
Worker

Salaries Paid
Railroad Men

signalmen, \$2.25; telegraphers, \$1.87-2.67; repairmen, \$2.50-2.75; maintenance of way foremen, \$2.60-3.25; maintenance of way laborers, \$1.80; building mechanics, \$2.75; carpenters, \$2.65; painters, \$2.50; car inspectors, \$2.40; railway clerks, \$1.70-3.25. There are many other grades of employment; but the foregoing may at least give a notion of about what the rank and file of railroad men are paid. While the conditions of work are hard and always will be so from the nature of the service, many unnecessary hardships have been removed. It used to be a matter of pride with some locomotive engineers, for instance, to be able, when called on to do so, to stand up under no sleep for forty-eight and even seventy-two hours. Of late years it has been realized that the best man without sleep becomes a very dangerous man, and in the interest of public safety an engineer seldom must be on duty during these protracted periods.

Unnecessary
Hardships
Removed

Young men planning to enter railroad work through any of the business divisions should understand what has been happening in this country to make the railroads more subject to public regulation than they once were. Because these steel-railed highways operate as a rule from one State to another they have been found to come under the laws governing interstate commerce and have been brought gradually under the control of the Interstate Commerce Commission. Once they were able to charge for passenger and freight service whatever they pleased—"as much as the traffic would bear," to use the railroad men's phrase. Now the charges for service from which they derive their income must all be approved by the Commission. How much further this policy of public control will go no man can predict at present. There are some people who believe that, within the lifetime of people now beginning to go to work, the railroads of this country, like those of many foreign countries, will be operated by the nation, and that the millions of railroad men will be government employees.

Regulation by
the Interstate
Commerce
Commission

A Formidable
Competitor of
Steam
Railroads

Electric transportation, as has been remarked, is probably the transportation of the future. Meantime a large proportion of the business of transporting people and a much smaller proportion of the business of transporting freight are already in the hands of electric companies. Starting from Frank J. Sprague's experimental electric car service at Richmond, Virginia, in 1886, this industry has grown to be of enormous size and, in many respects, a formidable competitor to the steam railroads. It succeeded the horse car lines which had heretofore connected American cities with their nearby suburbs, but it soon developed service between cities at a considerably lower rate per mile than the steam railroads could afford to grant. About 1905 the possibilities of transporting freight and express matter over electric railway lines began to be seriously considered. This branch of the industry is still in its infancy. Many engineers believe that it has a wonderful future, especially as there is a tendency of electric and steam lines to work together, the former serving as feeders for the latter.

Opportunities
in the Electric
Railway
Business

The electric railway business, therefore, may well look to the young American like a good one to think about. Not in this country alone but in every part of the world it offers chances to experts in electrical engineering. Many American engineers are to be found in the service of foreign electric companies. The lines in this country employ, of course, a large and increasing number of conductors, motormen, guards, inspectors, pitmen, powerhouse employees and many more. The wage scales are generally already good and, from the employees' standpoint, improving. Motormen and conductors inherited their occupation from horse car days when, without need of special training or skill, a pair of stout, well meaning men could operate a twenty-foot vehicle through the city streets. The wages then ran from \$1 to \$2 a day. Now the same crew may be called on to manage a fifty-foot car, very costly, equipped with elaborate me-

chanical devices which must be thoroughly understood by both men. The trains on elevated railroads and in subways, composed of cars that may run to seventy feet in length, are in some respects more difficult to handle than trains on the steam railroads. The work of electric railway employees, it is easily realized, has greatly increased in responsibility and demands upon the intelligence. The pay, in the larger cities, has about doubled since horse car days. Wage scales vary greatly. A trained conductor or motorman, according to locality and union conditions, receives from \$15 to \$25 a week; machine shop men and pitmen about three-fourths as much.

**Wages of
Electric Rail-
way Employees**

The organization of electric railways becomes more and more like that of the steam railroads. The departments are generally similar. Entrance into the service of the better managed companies is through a severe mental and physical test, designed to show that the successful candidate is intelligent, resourceful and wide-awake, that he is above the ordinary in bodily vigor and that he is not color-blind. Those who pass the examination and whose certificates of moral character are right, are taken on as "extras," and generally guaranteed either a certain number of trips a day or a minimum weekly wage. During this probationary period a man is under constant supervision of his division inspector. If he makes a favorable impression he is promoted to the regular service as soon as a vacancy occurs.

**Test and
Training for
the Service**

Articles about the opportunities in electric railway service frequently appear in the newspapers under some such caption as "From Humble Conductor to Street Car King." They are to a slight degree true enough. Up to now the traction companies have offered one of the best lines of occupation for a poor but ambitious and able young man. In one of our largest rapid transit companies practically every officer except the president has worked his way up from the platform, and the president began his career as attorney for a horse railroad com-

pany. The better paid supervisory positions, such as those of roadmaster and division superintendent, are very likely to be filled with former motormen or conductors. For a lad with a mechanical bent the traction company often gives the equivalent of a very valuable special education and pays him a living wage going along. Yet the uneducated boy must bear in mind that of late years there has been a great rush of "tech" graduates into electric railroading and that it may be harder from now on than it used to be to rise from the platform. One of the greatest financial and engineering organizations of the country has been built up by taking over electric traction and lighting properties in growing towns and applying scientific methods to their management. In this organization it is a matter of frequent jest that even the office boys are technology men.

Bright Pros-
pects of the
Electric Rail-
way Employee

SHIPS AND SHIPPING

Down to the general European war of 1914 it might be truthfully said that navigation was a great art and science, but not for the American youth who hoped to play a leading part in his country's business affairs. Whether a revived interest in shipping, due to the consequences of that titanic struggle and to the opening of the Panama Canal, will permanently increase the number of attractive careers on the water and will cause Americans to look seaward as their ancestors did, cannot be foretold. Certain it is that from about 1855 until the fateful day when Austria upset the peace of Europe a larger and larger proportion of our water-borne commerce was carried in foreign bottoms.

American
Commerce
Carried in
Foreign
Bottoms

That this was not always the situation every reader who recalls his American history will readily understand. In the colonial period seafaring was, next to farming, about the widest open and most promising occupation for young Americans who had no special talent for a profession. It gave the more intelligent among them an

education, a knowledge of the world and its ways, that was invaluable in forming their characters. "It may justly be doubted," says a writer,* "whether history has ever known a race of men so hardy, so self-reliant, so adaptable to the most complex situations, so determined to compel success, and so resigned in the presence of inevitable failure, as the early American sea captains. Their lives were spent in a ceaseless conflict with the forces of nature and of men. If by skilful seamanship a piratical schooner was avoided in the reaches of the Spanish Main, the resources of diplomacy would be taxed the next day to persuade some English or French colonial governor not to seize the cargo that had escaped the pirates. The captain must be a seaman, a sea soldier, a sea lawyer, and a sea merchant, shut off from his principals by space which no electric current then annihilated. He must study markets, sell his cargo at the most profitable point, buy what his prophetic vision suggested would sell profitably, sell half a dozen intermediary cargoes before returning, and even dispose of the vessel herself, if gain would result. His experience was almost as much commercial as nautical, and many of the shipping merchants who formed the aristocracy of old New York and Boston, mounted from the forecastle to the cabin, thence to the counting room."

The Early
American Sea
Captain

The Yankee skipper of eighty or a hundred years ago was feared and worshiped by his crew and admired by European seamen for his ship and his seamanship. Frank T. Bullen, the well-known writer of sea stories, has drawn a vivid picture of this despot of the ocean, striding up and down his quarter-deck in spotless white flannels, ruling his ship with a rod of iron and possessed by a perfect rage for discipline and cleanliness. Mr. Bullen records an instance of one captain who made a practice of taking down a saucepan from the cook's gal-

A Many-
sided Man

*Willis J. Abbott, in "American Merchant Ships and Sailors," New York, 1902.

ley and wiping it out with a white handkerchief. If the handkerchief bore any traces of grease or dust the cook heard from the skipper in no mild terms. Another captain was accustomed to put his handkerchief on the end of a stick and then poke the stick into every corner or crevice of the carved woodwork of the saloon. Dust upon the stick meant a stormy day for the saloon steward.

Many have been the regrets in the past half-century that the avenues leading to this kind of career have been practically closed to American boys. They have always been wide-open to youthful Britons. An English boy of good family and adventurous disposition thinks of navigation as something quite possible if he does not decide to prepare for the church, the bar, public service or mercantile business. He knows that if competent he may become second officer, first officer, then captain of a big liner carrying thousands of tons of freight and perhaps many passengers as well. Not one American youth in a thousand ever even thinks of such a possibility. For the reason that the coastwise trade by law must be carried on under the American flag there have always been a good many vessels of the United States that ply up and down the Atlantic and Pacific coasts. Also an immense procession of freighters uses the Great Lakes between Duluth and Buffalo. These employ a limited number of seamen and captains. It would be an exaggeration to say that Americans ever altogether stopped going to sea. Yet all the great international commerce has been carried in other than American ships.

The explanation of our lack of practical interest in navigation, it should be said in passing, has been economic. The country has often been preached at, as though it were doing some absurd thing in neglecting the chance to engage in the international shipping trade. Henceforth it may prove to be wise to return to the sea. But for the generations of Americans living between 1855 and 1914 it was undoubtedly true that they could

Limited Sea
Opportunities
of American
Youth

Coastwise
Trade Employ
a Limited
Number

not afford to spend their time and money on navigation when the English, Norwegians, and other nationalities could do it so much better and cheaper.

The conditions in shipping to-day, and especially in the share of the world's shipping that is controlled by Americans, are such that an intelligent young man would want to qualify for some specialty. The days of general seamanship are about over, and the forecastle is filled with a hybrid collection of all nationalities, races and colors whose duties of scrubbing the deck and the brass work are more pressing than clinging to the yardarm in the face of a roaring northeaster. Steam vessels continue to displace the sailing ships. The big steel hull, capable of carrying more cargo than a hundred wooden schooners, is equipped with mechanism for doing many of the tasks that once fell to the common sailor. The really worth while places on shipboard now are filled by specialists who did not learn their trades while serving before the mast.

**The Young
Sailor of
the Present**

Bright young men, capable of applying mechanical and designing ability to navigation, find an interesting profession in naval architecture and construction, the elements of which must be studied at a technical school. Many graduates from these courses secure employment from shipbuilding companies. Some design and manufacture small craft for pleasure use or fishing. This profession will grow in importance if the United States continues to develop into a sea power.

**The Profession
of Naval
Architecture**

A limited number of boys of good character who have learned the appropriate trades may secure regular and congenial employment on ships under American registry. The chances for spending money on shipboard are very few, so that the seaman who does not succumb to the temptation to "blow" everything when on shore leave is in a position to lay by very considerable savings. What a Massachusetts statistician found the coastwise transportation lines were paying their people may give an

idea of the scale of compensation in this field.* Wages are paid monthly. It should be noted that the employees while on shipboard get food that would cost them at least forty-five cents a day, and lodging that would cost variously. They lose on an average about seventeen per cent of their time through unemployment. Boatswains are paid \$30.00-35.00; ship's carpenters, \$35.00-40.00; carpenters' mates, \$30.00; coal passers, \$35.00; chief cooks, \$45.00-90.00; second cooks, \$25.00-50.00; third cooks, \$20.00; firemen, \$40.00; mess men, \$20.00-30.00; oilers, \$45.00; pantry men, \$27.00-30.00; porters, \$25.00; quartermasters, \$35.00; sailors, \$30.00; stewards, \$50.00-90.00; second stewards, \$35.00-50.00; stewardesses, \$20.00; storekeepers, \$35.00; waiters, \$20.00-25.00; watchmen, \$30.00-35.00.

Physical conditions on modern vessels represent a great improvement over those of old-fashioned fishing schooners and whalers, some of which still go out from Atlantic and Pacific ports. The element of adventure may occasionally enter into the seafaring man's life, though for the most part his occupation is likely to be as humdrum as any other. Statistics have often been offered to prove that he is safer on sea than on land. It is reasonably certain that the dangers of his calling are not greater than those of other transportation men.

It is possible that, in the near future, the intrepid soul who longs for romantic adventure by sea, will ship as a mariner on the submarine. It is too early at this writing to indicate the specific qualifications and training required for this calling. But it is safe to say that courage and considerable mechanical skill will be found necessary even for the common sailor on such a boat. For life aboard of a submarine, in more senses than one, will always have its ups and downs.

How transportation through the air may develop in

*"Water Transportation," Massachusetts Labor Bulletin, No. 91.

the next few generations can be predicted only by fanciful persons, and their estimates are mere guesses. It seems probable, however, that out of the present efforts of inventors to arrive at the "unsinkable airship" much safer and more stable vehicles of aviation will be created than those in which flying men now risk their lives. The aviator's profession is not as yet one into which a cautious person would like to send his son. The record of deaths continues after more than a decade of frequent flights to be portentously large. Yet aerial navigation may be the navigation of the future, and for a certain type of youth it will always have an irresistible fascination. The man who operates an aeroplane should combine the qualifications of the expert mechanic and the great musician; it is his immediate sensitiveness to impressions and the delicacy of his fingers that enable him so to manipulate his controls that the flight of his machine is as harmonious as the movement of a well-played organ sonata.

Transportation
Through
the Air

CHAPTER XII

OCCUPATIONS BASED ON SERVICE

TO SERVE may mean either to do something directly for the benefit of another person, and perhaps under his immediate supervision, or, more broadly, to perform acts that are useful to other people or classes of people. Service, in the broader sense of the word, is, fortunately, rendered by most workers; though there are some occupations that are of little or no use to the world. When a great railroad president said to a meeting of his employees, "I am just as much a servant of this company as any of you are," he spoke the literal truth. At the same time there has always, from Biblical days down to our own, been a class of people set apart and known as servants.

For the present let us think of service in the narrower meaning of the term. From time immemorial a great many men and women have been employed at doing things for other men and women which these might, if they chose or had the time, strength and skill, do for themselves. Ever since there have been governments individuals have been hired to serve as public servants, some of them serving as soldiers or sailors in order that in ordinary times other men should not have to leave their productive work to keep the peace or defend their country from sudden attack; some of them holding positions of political or administrative duty. In business and professional life it has long been customary for men of great earning capacity and executive temperament to hire others to attend to personal details the responsibility for which might detract from the efficiency of the promi-

Defining
Service

Those Perform-
ing Personal
Service

ment or leading personality. Many services have grown up which do for people away from home work that might be done at home; the restaurant, the laundry and the shoe-shining parlor are good examples of this type. Finally there is the great field of domestic service, performed largely but not exclusively by women workers; their occupations are conveniently summed up in the phrase "home-making."

In addition to these types of personal service it should always be borne in mind that service enters into most of the manufacturing and distributive businesses. In these pursuits, however, it is not directly personal, not a matter of one person hiring another to do something that he is thus spared from doing for himself.

Let us also note that popular prejudice against the word "servant" and the idea of service is gradually disappearing as the conditions under which all useful work is done are made better. Because in olden times much of the personal service of the world was performed by slaves a notion of disgrace or ignominy attaching to acts of service was long prevalent. This viewpoint is quite wrong, even though there are some forms of personal service from which, because they are either useless or debasing, any self-respecting worker very naturally shrinks. Labor in the interest of another person's efficiency is useful labor. It might be wished that all personal service had no other motive on the part either of the purchaser or of the seller.

The Word
"Servant"

The essentials of good service are based on certain familiar qualities of the good servant. Such a person is distinguished by loyalty to his employer's interest, sympathy, tact, courtesy, adaptability. Great initiative and venturesomeness he will not require. It is often said that a person does not make a good master or leader unless he also has the capacities of a faithful servant or follower. One may doubt if this principle is universally true. Yet it unquestionably helps one who directs the

labor of others to be quite competent to perform that labor efficiently and willingly himself. The ideal of absolutely unreasoning obedience, of complete subordination of individual will, except in case of military service and similar occupations where instant acceptance of orders becomes a necessity of safety, is less generally held in this country than in some nations. Almost everybody has read or heard of the Chinese cook whose mistress in showing him how to make a cake accidentally dropped and broke a cup. Noticing thereafter that her kitchen china was disappearing, she came upon the celestial servant just as, following exactly her instructions, as he supposed, he was dashing one of her cups to the ground. That kind of faithfulness is rather trying to an American's patience.

The Essentials
of Good Service

PUBLIC SERVICE

The business of governing our nation, States, cities, counties and villages gives employment to a great army of men and women following various professions and trades. These are expected each to be familiar enough with his own particular occupation so that he might earn a living by it in private life. So varied are the different lines of work which are done for the government that it is difficult to generalize about the qualifications of servants of the public beyond saying that their rank and file require just about the characteristics that have been described in the preceding paragraph. People of pronounced and assertive individuality are less likely to do well in governmental work than in the freer competition and hustle and bustle of private business. Those who are inclined loyally to serve a chief, to be content with promotions step by step and with salaries that are regular but rarely large, to be ready to accept discipline graciously and to impose it with quiet firmness—such are the men and women who fit into the scheme of a governmental department and become nearly indispensable in the conduct of some feature of it.

Qualifications
of the Valuable
Public Servant

Young people are sometimes warned against government service on the ground that it has the effect of deadening personal energy and initiative. Another, and perhaps the more accurate way of looking at the situation, indicates that the routine of public employment calls for men and women who have more of the capacity to serve than to lead. Certainly for those who have the requisite qualities for advancement public service has many opportunities, and it affords a livelihood for many of the faithful, loyal type who would be at least no better off in any other employ. There is a growing tendency to do many things through the government which up to now have been done through private agencies. This extension of governmental functions means a constantly increasing army of public servants, with a varied equipment of talents and training.

**Good Field
for the Faithful
and Loyal**

Governmental work should not be sought by any young man or young woman on the ground that it is a sinecure, offering light, easy work with short hours and larger pay than could be obtained by the same person in private employment. While a public position here and there may still merit this description, there has been a great "speeding up" of most national, state and municipal departments in the past two decades. Government clerks at Washington are much harder worked than formerly. The same thing is true of public servants at most state capitols and city halls. The life of employees of the post office is increasingly arduous. Compensation for such labor, furthermore, has not been increased proportionately with the advance in salaries in many commercial occupations. A compensating advantage is that the employment is usually secure during efficient conduct. Educated people who have ideals of doing things for the benefit of mankind often find it of inestimable help to have governmental resources behind them.

**No Easy Work,
Short Hours,
or Big Pay**

Governmental service may be divided into two classes, civil and military (including the navy).

The Civil Service

Under civil service is included an immense list of occupations followed by salaried workers in the interest of the national, state and municipal governments. A small proportion of these are political in character and are filled either by popular election or by appointment of some administrative officer. But a great majority of the routine places are to be obtained only by candidates of expert qualifications who have passed civil service examinations. For many years in the United States, public servants were appointed for political reasons in accordance with President Andrew Jackson's pronouncement that "to the victors belong the spoils." Since 1883, however, more and more of the national civil service has been classified and may be entered only after special examinations designed to test the candidates' fitness for the work in question. A similar statement may be made about state and city positions; more and more of these are reserved for men and women who have proved themselves likely to be able to fill them. In June, 1911, the National Assembly of Civil Service Commissioners, meeting at Madison, Wisconsin, drew up resolutions expressing gratitude that nearly two hundred and fifty American cities had adopted the merit system of appointment.

Civil service examinations now open the door to hundreds of thousands of positions in the public service. The national classified services alone employ a vast and growing army of people. Here are most of the clerks, both men and women, who fill the government's many departmental buildings at Washington: some of them, as in the departments of agriculture, war and navy, doing scientific work of the most advanced character; some, as in the treasury, patent office and government printing office, engaged in the most delicate mechanical operations; many pursuing routine bookkeeping and filing operations of about the same grade and compensation as found in the private business life of other cities.

The Merit
System of
Appointment

Immense
Variety of
Positions in
National
Service

Not all the national clerical force is located at Washington, of course. Many of the federal activities are represented in most American centres of population, as at the many post offices, custom houses and stations of the weather bureau. In nearly all foreign cities the United States is represented by consuls and their assistants; a large part of the consular service has been brought within the operation of the civil service examinations. It is, in fact, a very big business which the government has built up from the modest beginnings of a century ago, and it is a business which a youth with the requisite qualifications need not fear to enter on the ground that its bigness stifles individual ambition. Many of the leading men in public life to-day started as government clerks and took advantage of the regularity of their hours and compensation to improve their leisure moments.

**Big Business
of the
Government**

Examinations for the national classified services are held at frequent intervals in our larger cities. Any citizen of the United States is eligible to enter any of these tests. His papers will be graded according to a percentage scale. If he makes seventy per cent or better he is eligible for appointment to the position in question. His name, if he wishes, then goes on an eligible list. When a vacancy occurs the three names at the head of the list are certified and one of these—almost invariably the first, unless something detrimental to his physical condition or moral character has been discovered—is appointed to the place. The appointee is on probation for six months. If he performs his duties satisfactorily during probation he is placed on the permanent list. Generally similar conditions of appointment prevail in state and municipal civil services. Information about national opportunities may always be secured from the National Civil Service Commission, Washington, D. C. Salaries in the government service run ordinarily from \$600 to \$3,000 a year. Those above \$2,000 demand, as a rule, expert qualifications. There are a number of pri-

**Civil Service
Examinations**

vate schools, most of them located at Washington, which make a specialty of preparing candidates for civil service examinations.

The Army and Navy

Opinion is undoubtedly divided in many American families as to the desirability of the military or naval career for a young man. In the old days military service ranked with the church and the bar in popular esteem. To be an officer in the army or navy was to have a passport to the best society everywhere; no calling was recognized as more honorable. Much of this high esteem of the military profession still remains. Army and navy men are respected for their universal efficiency, self-control and high standards of personal integrity. Of the value of the training that both officers and soldiers or sailors receive in the service there is little doubt. Yet a strong sentiment is growing against war as an organized business, and the parent who holds anti-militarist views would generally prefer that his son engage in some more pacific calling. Outside of certain social circles in which naval or military occupation has been usual for generations, there are probably few families to-day in which there is great anxiety to enlist a boy in a warlike occupation.

However, a sufficient army and navy for practical protection against sudden emergencies will long be necessary, and will continue to furnish careers for many American lads. The organization of the army is familiar to most boys and girls. It consists of two rather distinct grades of service: on the one side the privates and non-commissioned officers whose calling is not regarded as professional in the sense that the law and medicine are professions, and on the other side the commissioned officers who are supposed to be highly educated men practicing the profession of arms. It ordinarily is difficult for the young fellow who has enlisted as a private to rise

Shall the Boy
Become a
Soldier?

Service in the
United States
Army



INSPECTION OF ARMS, U. S. MILITARY ACADEMY, WEST POINT.

higher than through the grades of the noncommissioned officers; the higher places, the lieutenancies and those above, are usually reserved for graduates of the United States Military Academy at West Point. Service in the ranks, therefore, unless the soldier has very exceptional qualifications, including those that will win him ready social recognition as a "gentleman," is quite liable to prove to be a "blind-alley" occupation. Service as an officer, on the other hand, presents opportunities to the ambitious young man who has qualities of leadership or marked scientific attainments.

Service in
the Ranks a
"Blind-alley"
Occupation

To enlist as a private a man must be between twenty-one and thirty-five years old, unmarried, of good character and habits, able-bodied and free from physical defects or diseases. He must be a citizen of the United States or must have declared his intention of becoming one. Enlistment is for a term of service of three years, after which honorable discharge is possible. Payment consists of a small monthly salary in addition to daily rations, clothing allowance and medical attendance. After thirty years' service a soldier may be retired on three-fourths pay. Privates who show capacity are promoted to be noncommissioned officers, as corporals and sergeants. Their compensation runs to about \$40 a month. Occasionally a noncommissioned officer of exceptional qualifications rises into the ranks of the commissioned officers. In general, however, enlistment as a common soldier means a lifetime of humdrum duties with little hope or expectation of advancement.

Duties and
Prospects of
the Common
Soldier

An ambitious boy, anxious to enter military service, will make an effort to secure appointment as a cadet at the United States Military Academy. These chances occur frequently. Each congressional district is entitled to one cadetship, each State to two at large, and forty appointments are made by the nation. The local appointments are usually, though not necessarily, made after a competitive examination announced in due course by the

**The West
Point Cadet**

congressman of the district. Such an examination brings out a large number of candidates from among the best students of high schools and academies in the district, for the opportunity to gain a high-grade education at no expense to the family is valued. Candidates must be between the ages of seventeen and twenty-two and must pass a rigid physical test as well as examinations in elementary school subjects. The appointee, on entering West Point, receives \$500 a year and one ration a day, making a total of \$609.50 a year on which he is supposed to live without help from his parents.

The course at the Military Academy is severe, demanding special proficiency in mathematics, modern languages and engineering subjects. The cadet who is graduated is usually assigned to a second lieutenantcy in the regular army with annual salary of \$1,400, out of which he provides his own food and clothes. Thence he may rise through the various grades of service, receiving compensation that looks more satisfactory on paper than it is in reality, since the army officer's expenses, especially if he marries, are generally very heavy. A colonel receives \$4,500; a brigadier general, \$5,500. Commissioned officers at the age of sixty-four may be retired on three-quarters pay.

**Opportunities
in the United
States Navy**

A set of statements similar to the above may be made about the United States naval service. Enlistment as a sailor is glowingly portrayed on the billboards with which the Navy Department endeavors to induce a high class of young men to be examined for the service. The chances for foreign travel undoubtedly exist, and the sailor's life aboard a government vessel is more favorable than on the average merchantman. Still, for the great majority, the occupation leads nowhere. Just as in the army the avenues of promotion are practically closed at the point where specially trained cadets are admitted. A boy who aspires to be a naval officer should by all means write to his congressman for information concern-

ing the next vacancy from his district at the United States Naval Academy at Annapolis.

BUSINESSES BUILT ON PERSONAL SERVICE

In every large community are many business establishments which exist not so much to sell goods as to perform a personal service. The line of demarcation between these and the distributing enterprises of which we have already spoken, is not always very sharp. The tailor is also a merchant; he sells cloth as well as the skill and taste that enable him to fashion clothes better than his customers could make them at home. The laundryman seems to deal principally in washing and ironing service; yet the cost accountant who figures on his bills for soap, starch, bluing and other laundry supplies knows that the price list properly includes items for commodities for which the householder would have to pay if all the washing were done at home. Most occupations of gainful service have, in fact, a mercantile element. Most merchants, as before shown, are engaged in developing forms of service. All the little businesses, furthermore, which have come down to us from days when service was more universally personal than now, are feeling the competition of the great mercantile firms which combine manifold selling and service features under one roof. The tailor's field of operations is steadily restricted by the growth of the ready-made clothing industry which, in the modern store, includes enough individual tailoring to insure proper fitting of garments. Shoemaking by cobblers, once an important trade, is now restricted to the wants of a very small class of customers. The modern milliner has to face the competition of department store hats.

**Competition
of the Little
Businesses
With Great
Mercantile
Firms**

Before starting to learn any trade based on personal service a young person should, so far as possible, try to get an idea what the future of the occupation is likely to be. The possibilities of the competition just referred to should be considered; if the trade is one which will

**Forecasting
the Future of
an Occupation**

probably be gradually absorbed by the large mercantile establishments, then the person who has learned it must expect to become a salaried employee and not look forward to independent proprietorship. It is also well to think of the likelihood that the trade in question may lose through inventions that make it easy for persons to do things for themselves instead of hiring others to do them. The barber's business is a striking example of the latter tendency. While we shall always have barbers the safety razor has unquestionably restricted the volume of business in barber shops.

*Dressmaking and Millinery***The Trade
of the
Independent
Dressmaker**

Personal service occupations open to women are many and some of them rather attractive. The trades of dressmaking and millinery offer a characteristic pursuit. From very early times households have employed the dressmaking expert—one who with a natural interest in the modes and trained understanding of the processes of sewing is able to make better clothes for the women members than they can shape for themselves. While the field for old-fashioned house-to-house dressmaking does not expand so fast as the population (on account of the increasing attractiveness of ready-made clothing), a very large number of women still support themselves in whole or in part by dressmaking. Most of these learned their art by rule of thumb from some other dressmaker, though younger members of the calling may have studied in the special designing and dressmaking classes that are now frequently found in the day or evening classes of the public school system. The independent dressmaker charges her customer from \$1.50 to \$3.50 a day, and obtains usually one or two meals daily while a temporary member of the household. Dressmakers of this type are rarely employed continuously throughout the year. They must count on non-employment during dull seasons.

Out of the individual dressmaker's occupation has

been evolved the large dressmaking establishment of the cities. In this the proprietor, who must be a keen business woman, does the planning and designing of work the details of which are executed by a staff of specialists. Her list of employees may include waist drapers, paid from \$12 to \$20 weekly; waist finishers, \$6 to \$10; sleeve makers, \$6 to \$15; embroiderers and collar makers, \$6 to \$12; skirt makers and skirt finishers, \$6 to \$15. For a girl of good taste and clever fingers this occupation may offer interesting possibilities.

**The Dress-
making Shop**

Similar opportunities exist in the allied millinery trade, covering the making of hats for women, exclusive of the cheap hats manufactured in special factories and sold through the department stores. Despite the competition with ready-made headaddress, the milliner, whose occupation has been carefully studied in a pamphlet issued by the Girls' Trade Education League, continues to thrive because she is able to design, make and trim hats that meet the tastes of the individual customer. In the larger cities a very successful proprietor of a millinery establishment sometimes makes annual profits of \$10,000 or more. It has been estimated that such a shop, in a good location and conducted on business principles, ought at the least to net \$2,500. Under the proprietor, who has probably worked her way up from errand girl, are salaried helpers. Among these the leaders in earnings and prominence are the designers, often graduates of the design classes of art schools, who are paid from \$25 to \$50 a week. Below them are the trimmers, who also must have artistic ability, good taste and some originality; they receive from \$15 to \$30. Their work is prepared for them by the makers, who represent the rank and file of the shop and whose salaries vary from \$3 a week paid to the learners up to about \$12 to the finished workers. Milliners must have dry hands, deftness of touch and power of sustained effort. They naturally should be interested in color and design.

**The Outlook
in the Milli-
nery Trade**

The Power Laundry

Remarkable
Growth of the
Power Laundry

Wash Days
Infrequent in
the Middle
Ages

Of businesses that have recently been developed to do work formerly done at home, none has shown a more remarkable growth than the power laundry. The laundry industry is now the sixth in value of output in the United States. Washing from time immemorial has been one of the heavy burdens of domestic life. In some countries it is still performed only in weather sufficiently clement to allow women to scrub by the riverside. Of conditions in the old time a writer has said: "There were, in sooth, few garments which would stand washing, and the dyer was doing a brisk trade before the laundress was even thought of. A little dye must indeed have covered a multitude of spots. In the days of the Tudors and Stuarts washing was a trifle more usual than formerly, but those articles which were permitted to find their way into the 'buckpan'—as the washtub used to be called—were few and far between. The wealthy of the Middle Ages got over the difficulty of obtaining clean underclothing with primitive simplicity, by not wearing any; whilst the lower orders wore coarse woolen garments that would no doubt have 'shrunk in the wash.' To prevent any casualty of the kind they remained unwashed. Velvets, taffetas and richly dyed silks, such as those worn by the nobility and gentry, could not, of course, be washed, and should any person of high degree be the possessor of a linen shirt, it was a thing which was carefully made known to all his friends and relations as being extremely à la mode and a fit subject for congratulation—but washed it never was, for fear of injuring its pristine beauty."

In America, until lately, laundry work has been done almost entirely in household kitchens and basements, either by the women of the home or by washerwomen paid to wash and iron at fifteen, twenty or twenty-five cents an hour. Much laundering is still a home occupation, but a constantly larger share of it goes to the power laun-

dries. These establishments, equipped with rotary washing machines, flatwork ironers and a multitude of apparatus for handling starched goods, save the housekeeper's time and, it is claimed by the laundryman, lengthen the wearing life of clothes and household linen. While the laundries are gradually displacing the washerwoman in many communities, they give employment to thousands of women and girls who in a well conducted laundry labor under more favorable conditions than in the average household.

**Advantages of
the Power
Laundry**

For a young man the purveying of laundry service has become a very attractive occupation. Interest in mechanical operations and some knowledge of chemistry is essential, for on these two depends the success of the modern laundry. Entrance into the service will ordinarily be through getting a job, though a national school for training of laundrymen has been projected for installation at Troy, New York. A boy may obtain employment as assistant in the washroom, as marker and assorter or on one of the delivery wagons. In one of these departments he may rise from \$6 or \$8 to about \$20 a week. As he masters the business he may become a foreman with a salary running up to \$50 or \$60 a week. An ambitious man should, of course, plan to buy an interest in a favorably situated laundry. Larger laundries sometimes employ trained chemists at professional salaries.

**The Young
Man in Laun-
dry Service**

The chances for women's advancement in the laundry are not equal to those of the men. Indeed, the conditions of employment of female workers in many laundries have been made the subject of criticism by investigators, who have found the wages low, the work excessively wearing and the sanitary provisions inadequate. The better class of laundries, however, have always looked out for the welfare of their help, and others are now very generally required to do so. Wages in many cases have been raised voluntarily and in advance of minimum wage legislation which has affected the laundries in several States. One

Improved
Conditions for
Women
Laundry
Workers

of the largest laundries of the Middle West has established a minimum wage of \$9 a week; the proprietor claims that, as a matter of good business, his investment amounting to about \$3,000 per employee, he cannot afford to hire girls of the underpaid, dispirited and unproductive kind. This example has been given wide publicity in the laundry journals and many laundry owners have been influenced by it. Whereas a few years ago many of them employed young girls or women of low mentality at \$4 or \$5 a week, the tendency now is to engage more intelligent help at about twice the former wages.

Complicated
Laundry
Machinery

Women are not usually employed in the washroom where heavy baskets of clothes must be lifted in and out of the washing machines and extractors. In the flatwork, starching and ironing departments, however, they do practically all the work. One of the simplest and lowest paid forms of work is that at the flatwork ironer, one crew feeding articles into the great padded rollers, a corresponding crew on the other side of the machine receiving and folding the ironed goods. Elsewhere in the laundry is a bewildering array of machines worked by more highly skilled operators: dating and marking machines that enable the customer and the laundryman to keep track of the wearing life of textiles; machines for hot starching and cold starching; collar molders; seam dampeners; a vast collar ironer that may handle as many as two thousand collars an hour; body, sleeve and neck-band ironers; sewing and darning machines that save the housekeeper much of her weekly mending, and numerous other types of apparatus.

Women who operate these machines should be strong and free from troubles that may prevent their standing long on their feet. Because of the concentration of work in the first four days of the working week there are periods of great hustling in the laundry. The girl to advise to enter laundry work is one who in former times would have made a good domestic laundress. At the power

laundry she will have the advantage of a regular wage, regular hours, association with other young women, release from the heavier, more taxing work of rubbing and wringing, and clean sanitary surroundings which in the best modern laundries closely approach those of the hospital. If a highly educated and efficient girl entered the laundry she would perhaps rise to be chief inspector with a salary of from \$15 to \$25. It is conceivable that, having acquired a knowledge of chemistry, she might become laundry manager, though this place is regularly held by a man who has risen from the washroom.

**Physical
Strength
Necessary in
Women Laun-
dry Workers**

More or less has been written about ownership and operation of laundries as a profitable occupation for women. The actual cases of such ownership have thus far been confined for the most part to the small hand laundries which are numerous in the larger American cities and very numerous abroad. These establishments, often consisting of a woman proprietor and two or three young girl assistants, face an increasingly severe competition, as regards quality and service, with the power laundries, to which—though this fact is generally concealed from the public—they send the bulk of their washing. Many hotels and restaurants maintain laundries of their own, in some of which women are employed exclusively. These are believed by many observers to be gradually succumbing to the superior cheapness and quality of the work done by the large laundries of general output.

**Hand
Laundries**

Hotels and Restaurants

It is sometimes said that Americans are forsaking home life for hotel life. Even though such a statement contains an exaggeration, it is unquestionably true that hotel and restaurant service is growing faster than the normal increase of the population. Two generations ago the hotel existed almost solely for the benefit of travelers. The restaurant was a place of refectation at which an occasional individual, unable to reach home in time for noon

dinner, could get something to eat. The quality of their service justified the old jest about the younger son of a noble British family who, after various adventures in the New World, was impelled by the necessity of making a living to serve as waiter in an American restaurant. Here he was noted by a friend from home who pitied him his hard fate. "Yes," said the Briton sadly, "life is hard and I have been down on my luck. But," with a gleam of hopefulness in his face, "at least I don't have to eat here, you know."

**Extraordinary
Growth of
Hotels and
Restaurants**

Now, especially in the larger cities, thousands of individuals and families make their homes at hotels. Apartment houses with restaurants attached have sprung up in every considerable community. Dwellers in city houses and flats depend more and more upon neighborhood restaurants for some or all of their meals. As workers move into suburban homes which they cannot reach in the middle of the day the noontime business of downtown eating places grows apace. These and other easily observed facts prove that the home kitchen has a very real competitor.

**Hotel and
Restaurant
Services Should
Be Professionalized**

When one considers the opportunities of employment and management in the hotel and restaurant business and the certainty of further expansion of these forms of service, it is rather extraordinary that so little effort has been made to professionalize the whole range of callings connected with these services. The management of a great metropolitan hotel should call for breadth and intelligence similar to that of the management of a large law office or banking house; yet the universities do not offer courses in hostelry as they do in law and banking. The hotel chef is a professional expert commanding a salary equal to that of a successful physician or engineer; a young American finds difficulty, however, in securing thorough preliminary training in the art and science of cooking, and even to become an expert waiter he would have to go abroad for his education. To run a restaurant,

serving healthful, well-cooked food, should require at least as highly skilled service as the law demands of the proprietor of a drug store. Yet we have no system of registered restaurateurs and almost no educational institutions in which a young man or young woman can get instruction in dietetics comparable with that of a good school of pharmacy. Among all the country's great businesses this very vital service of supplying cooked food is one of the most haphazard and unregulated. Most people get into it because they see a chance to get a job, not because they have found a vocation appealing to their interest and constructive imagination. From the widow who uses her life insurance money to start a boarding house or the young capitalist who speculates in a New York or Florida hotel property down to the girl graduate of a grammar school who takes a three-dollar job as waitress in a local restaurant, few of the purveyors of food and lodging service begin with any kind of preparation for their calling or with any real knowledge of its possibilities and requirements.

**Two Haphazard
and Unregu-
lated Businesses**

While this situation may be improved in the near future, it is true to-day that only young people of pronounced initiative and practical imagination should be urged to go into any branch of the hotel or restaurant business. The kind of boy who instinctively understands better than his fellows how to bring order and system out of confusion and chaos may have in him the making of a successful hotel man. There is a suggestion for resourceful girls in the story of a young college woman who applied her knowledge of chemistry to baking a perfect bread, who presently undertook to use laboratory methods in running a lunchroom and who is to-day manager of a chain of restaurants doing an enormous business. Almost innumerable chances like this exist in our cities, but systematic ways of preparing for them have yet to be developed; they must for the most part be grasped by individuals with the pioneering disposition.

**Qualifications
for Hotel or
Restaurant
Business**

**Training for
the Hotel
Business**

A young American undertaking to learn the hotel business should get work as bell boy, cook's assistant, waiter or desk man in a good hotel. His chances for an all-round training and for forming useful acquaintances will probably be greater in a summer or winter resort house than in one of the big city hostelries. In many departments of the latter, indeed, he will find that native Americans are not wanted. The chefs, for example, who are among the best paid employees, sometimes receiving as high as \$10,000 a year, are usually foreigners, who appoint from men of their own nationality the expert pastry cooks, confectioners, *chefs sauciers* and other kitchen assistants. Conditions in the dining-room service of metropolitan hotels are precisely similar. The head waiter, a high-salaried man, is a graduate of the celebrated Union Genevoise, or International Hotel Employee Society, which supplies hotel help to every civilized country, and he naturally gives preference to young men who have had the same thorough training. These places, therefore, well-paid in the larger cities, where a waiter may receive about \$25 a week salary and tips running from \$100 to \$200 a month, are almost completely closed to native Americans.

**Opportunities
for American
Men in Hotel
Business**

The hotel desk and bookkeeping department, on the other hand, are wide-open to Americans, usually to men who have shown capacity in the service of smaller hotels. The qualifications of the hotel clerk are well known: a prepossessing personality, capacity for making friends, diplomacy in handling disagreeable situations and a remarkably well developed memory for names and faces. The multiplication of pleasure resort hotels has been so great in this country and Canada that many good positions have thus been created for American men. It is usually possible for the trained employee to get work in northern hotels during the summer season and then soon after the autumn closing to go south.

Many women find hotel employment as chambermaids,

waitresses and, in small hotels and boarding houses, as cooks. The work, as a rule, leads to nothing especially desirable in the same line. Girl students frequently are enabled to earn a little money toward continuation of their education by waiting on table. Young women of limited intellectual capacity may discover in the same kind of service work for which they are as well fitted as any. But this is not a line of employments to which one would direct an ambitious, intelligent girl, as yet. There is, however, in large hotels one very fine position that is open to women. This is the place of the hotel housekeeper, usually a native American, who directs all the female help. In a metropolitan house she may have under her supervision two or three hundred women. Her salary is from \$100 to \$150 a month and she has a private apartment with board and service that would cost her at least as much more if she had to pay cash for it. She often has an assistant housekeeper. These positions, while limited in number, offer an excellent opportunity to young women well trained in domestic science.

**Opportunities
for Women in
Hotel Business**

The restaurant business has been, as we have already indicated, one of the lost opportunities for progressive Americans. Our standards of cooking and table service have been below those of most civilized nations. Only in exceptional instances has the restaurateur shown a professional interest in setting well cooked food of a good quality and moderate price before a satisfied public. Of late, however, there has been considerable improvement in the restaurants of most American cities. Large aggregations of capital have been enlisted to run chains of downtown eating places, at which for very low prices generally excellent food is served or "self-served." Tea rooms and lunch rooms conducted by intelligent and often highly educated women have been multiplied. Restaurants that equal or surpass the highest European standards have become numerous in the largest centres of population.

**The Status of
the Restaurant**

**Learning the
Restaurant
Business**

It remains true, nevertheless, that the conduct of food shops is about as little standardized as of any class of commercial establishments. In a period of advancing costs of supplies and of help restaurants are notoriously difficult to make pay, especially when the proprietors operate on a small scale. Yet the field is so promising that only lack of suitable facilities for technical education prevents it from being attractive to many graduates of colleges and high schools. At present almost anyone with a little capital and possibly a slight knowledge of "home" cooking (which may be very bad cooking) feels justified in buying or starting a restaurant. To learn the business from the ground up a young man or young woman had best begin in the culinary department or as waiter or counterman. These trades are often unionized with wage scales that in several large cities have been raised from time to time during recent years. The growth of restaurants of the self-service type is somewhat diminishing the chances for employment in the dining room. The counterman, on the other hand, becomes an increasingly important factor in the business. The cook in the low-priced restaurant is one of the best paid functionaries. But his operations are somewhat restricted by the tendency of restaurateurs to buy a large proportion of their edibles from the baker.

*Bakers and Baking Establishments***Bakers'
Product
Improved**

One other of the great commercial businesses that have been built up on the principle of supplanting domestic service may be singled out for special mention. Bakers and confectioners have established a very considerable competition with home cooking of breadstuffs and sweetstuffs. It may fairly be presumed that these allied trades will continue to grow rapidly. The quality of their product has certainly improved wonderfully since the days when "baker's bread" was synonymous with a poor, dry, unnutritious loaf. Especially in larger bakeries scientific

methods have been applied to cooking, with the result that failures and partial failures have been reduced to a minimum.

The baking business has considerable possibilities for the capable, though the tendency toward a few very large establishments in place of the former numerous little bakeshops makes the industry one in which there is less and less chance of becoming an independent proprietor. A boy wishing to learn the trade may obtain a place as chore boy in the manufacturing department of a large bakery. He cleans pans, pares apples and does other work at \$3 or \$4 a week for a year or two years until he is promoted to be "third hand" or general baker, at about \$15 a week. Then he becomes successively second hand, at \$16 to \$18, and finally first hand, or foreman, at \$18 to \$25. In many shops these wages are determined by a union scale. Machinery and chemistry play an important part in the bakery; to rise to leadership a young man should be a good mechanic and should seek chemical instruction. Much of the work is laborious, so that good health and strength are requisite. The bulk of the employees, outside of the clerical force, are men.

**Wages and
Training of
Employees in
a Bakery**

The confectionery business presents a generally similar situation, except that girls and women are employed in great numbers in such operations as dipping, wrapping, packing and labeling. Boys and men are engaged as helpers, assistants, weighers, mixers, boilers, pullers and shippers. A young man entering the confectionery trade, unless he is connected with the "selling end," should look ahead to the command of sufficient capital to set up for himself either as confectioner or caterer.

**The Con-
fectionery
Business**

Home-Making and Domestic Service

The instinct causing most people to desire to have their own homes is one of the strongest in human nature, and there is no reason to believe that the improvement of hotel life and other forms of community living will ever lead

Business of
Home-making
Not Decreasing

a majority of young people to give up the ideal of an independent home. In spite of woman's filling an ever larger place in industry and in spite of the undoubted fact that young people in many social groups marry later in life than they once did, the United States census figures show that nearly ninety-four women out of one hundred are married, early or late. Much of the work, as we have seen, that was once done in the home is now done outside the home, and women, both the unmarried and to an extent the married, have followed it to the workshop. Yet, even though the home may be less of a hive of industry than in the old days, it remains the preferred place of abode. Even with the best modern equipment the house in which people live requires care; the calling, or profession, of home-making is therefore still one of the most important in the whole list of occupations. It is very important in point of numbers; more workers are engaged in household tasks than in any other one form of occupation. The health, long life and happiness, furthermore, of all the people depend in very large measure on the intelligence and efficiency of those who labor in the household. Most people eat most of their food at home; it is well known to experts in public health that many of the diseases that cause suffering and premature death in the world would have little chance to develop if in every household a high standard of simple, nourishing, well-selected and well-cooked food could be supplied. Regular, refreshing sleep in properly furnished, clean and airy bedchambers is another chief means of avoiding the maladies that are quite unnecessary and destructive to human life and happiness; homes in which both the conditions and the habits of sleeping are well regulated are therefore rendering an inestimable service to the race as well as to the individual children and adults of the household. All our ideas and ideals from infancy to old age are influenced by the objects with which we are surrounded; orderly and charming home furnishing, directed by a

Supreme Im-
portance of
Home-making

trained mind, means enrichment of existence for all who are brought into contact with it.

Perfectly clear as the home-maker's responsibility is, and always has been, her occupation has only very slowly been professionalized. Many young women are still suddenly thrust into one of the most serious of occupations with no expert knowledge of how it should be carried on and often with a notion that it ought to provide a means of escape from serious exertion of any kind. In former periods of history most girls at least received at their mothers' hands a certain rule of thumb training in humble domestic tasks. As a modern substitute for this form of education domestic science is now taught in many public and private schools. Magazines devoted to women's interests have proved to not a few women that the home-maker's tasks may be performed with an efficiency and scientific precision similar to that prevailing in occupations directed by highly educated men. A new reasonableness is being introduced into the average person's manner of looking at the problems of home life.

**Inadequate
Training for
Home-making**

American homes, under this new impulse, are becoming more and more attractive. Architects are learning to design for comfort and convenience. Much of the sordid and disagreeable work has been slowly eliminated, either through newly invented devices or through such outside services as have been described. It is easier now to heat a house and keep it clean than ever before. In thousands of families it is realized that comfort is impossible amidst clutter and that orderly simplicity of arrangement, obtained by furnishing the home with a few good things rather than many useless things, is preferable to the general stuffiness that characterized the houses of forty years ago. Throughout America one encounters delightful residences; it is right and natural that every boy or girl should look forward to being joint proprietor of one of these, for this furnishes a strong incentive to effort.

**American
Homes
Improving**

With rare exceptions, the women who are married will

become home-makers. A girl may be prepared, in most cases, for some other occupation as well. She may work at a gainful pursuit for a number of years. Both the special education she thus gets and the disciplinary effect of the employment may be of very great value in forming her character and making her a well-balanced, resourceful human being. But most girls ought to some extent to be educated for two possible vocations: for a profession or trade by which they may earn a good living, and for the rôle of wife and mother. This is often pronounced a difficult programme, especially by people who cling to the notion that some mysterious instinct or intuition will instruct an utterly unprepared young woman when she is called on to rear children and create a home for them. It is frequently urged that while a girl in high school or college is studying hard she cannot be expected to curtail her social pleasures for the sake of learning household duties that she may never be called on to perform. Yet most young people know well enough that time could be found, in the long vacation or otherwise, for making a start at acquiring some of the elements of domestic science. It is to be hoped that eventually all women's colleges will demand evidence of knowledge of the domestic sciences as one of their admission requirements. Meantime most girls who attend a high school in which such a course is offered can now arrange their studies so as to include at least a part of the instruction. In many elementary schools, too, a beginning has been made of introducing a little teaching of the elements of sewing, dress-making and millinery and simple cooking, and in the larger cities there are evening school courses for the benefit of young girls who have had to go to work young. Several educational institutions of collegiate character offer advanced work in the domestic occupations; their courses have had the double advantage of fitting a girl either for married life or for professional work as institutional housekeeper or teacher of household economics.

Preparing the
Girl for Two
Possible
Vocations

Training in
Domestic
Science

In addition to study directly bearing on home-making, since all girls are likely to be married, those whose circumstances permit of a general education ought to plan their studies somewhat with reference to their probable future. Many of the subjects and "accomplishments" which in the past have been held as proper to the education of a gentlewoman, are of comparatively little use in preparing for the life in which modern women find themselves. Unless special talent turns a girl irresistibly toward a specialty, her course in high school and college should by all means include a generous allowance of the sciences. It is not simply that these subjects may be of practical value in housekeeping (as chemistry certainly is), but that they give a true understanding of the importance of material things in our lives. The scientific method encourages clear thinking and intelligent action.

**Value of
Sciences in
Girls'
Education**

Girls who are employed in gainful pursuits often get useful training for later household duties. Professional women, those in the needle trades, office workers and saleswomen, as they become expert, are acquiring habits of thought and conduct that assist greatly in the smooth running of a household. The nurse who is married to a doctor generally makes an admirable housewife. Experience in systematic bookkeeping prepares a woman for the problems of household finance. It hardly need be said that expert knowledge of dressmaking or millinery has a distinct money value in the home. Factory work is less directly valuable than some other forms of employment to the future home-maker, for the person who performs the same mechanical operation, endlessly repeated, fails to develop the versatility and adaptability that are needed in the household.

**Gainful Occu-
pations and
Future Home-
makers**

Domestic workers may be divided into three general classes: those whose sole occupation is that of managing a household, either with or without assistants; those who keep house either for themselves or for others, but who also follow a gainful occupation in hours not given to

domestic work; those who serve in the household in a subordinate capacity either as a member of the family or as an employee. Practically all these workers are women.

What it means to be sole manager of a home is probably familiar in a general way to every reader of this book. In nineteen families out of twenty there is no hired assistant or servant. In most homes "Mother" does most of the work. Her tasks are incessant and exacting, and, if she is very conscientious about them, she may seriously injure her health. She is not under the law regarded as a salaried worker; whatever money, if any, she receives is by agreement with her husband. She may serve as cashier of the domestic concern, paying all bills out of allowances made her, or she may be permitted very little responsibility in the spending of the family income. If she makes herself thoroughly efficient in her occupation her efforts ought to better her situation in life, and generally do have that effect. Her position sometimes gives rise to little colloquies like the following: "I hear you have a college graduate for a cook. Isn't that very expensive?" "Not very. She works for her board and clothes." "Why, how does she come to do that?" "She is my wife."

The hopeful circumstance, in brief, about home-making as a vocation is that it is steadily being made more attractive and less exhausting by inventions and improved processes. Just as the farmer of to-day can with modern machinery cultivate more land than his grandfather could, and with less physical exertion, so the present day housewife can save her strength and nerves in ways undreamed of in her grandmother's time. The house or apartment may be planned to eliminate needless steps and unnecessary motions. Much of the work may profitably be done away from home. Orders may be delivered by telephone instead of in person. Fireless cookers, electrical cooking, ironing and heating apparatus, vacuum cleaners and many other labor-saving devices have come

The Mother's
Sphere

Hopeful Out-
look in Home-
making

to the house-manager's aid. Even where one pair of hands must do all the work, time may be left, if the house is properly built and equipped, for some of the leisure and recreation to which every human being has a right.

If the young home-maker plans to do her own work and do it effectively she should, according to a household expert, have living quarters not exceeding one thousand square feet of floor space. Rooms enough for comfort but not to be burdensome should be the rule from the first. The same principle applies to the furnishing of the apartment, bungalow or house. The increasing dearth of domestic servants makes it inevitable that more and more women, even among the comfortable classes, must manage for themselves. It is an essential principle of domestic science that the home will not be any less homelike if it is as carefully planned as a good workshop would be. The modern factory is designed with reference to the most economical routing—that is, to getting the raw materials into the establishment and to the workers with the least expenditure of time and effort. In the ideal house the routes from the marketman's delivery wagon to the dining table and thence to the clearing away processes are all wide open and easy to traverse.

Planning the
Modern Home

Go into one of these thoroughly modern homes and you are surprised to see how quietly and effectively the work is managed. The sweeping, which was commended by John Ruskin as ideal exercise for women, is now done by means of a vacuum cleaner with minimum of noise and raising of dust. At the table the guest listens to praises of the fireless cooker, and when he comments on the deliciousness of the roast fowl he learns that the thrifty housewife for this particular dinner has purchased a tough old hen, one of the kind called by the restaurant-keepers a "two-day-and-a-nighter," and that the moisture-containing cooker has done the rest.

How Work
Is Managed
in the Modern
Home

Many home-makers must, despite the invention of time-saving and labor-saving devices, and the development of

**The Domestic
Service
Problem**

outside services that take work out of the house, either occasionally or permanently have regular assistance in the performance of household tasks. Women whose circumstances permit keeping up a large house or who have business or social occupations outside of the house, must have help on which they can depend. In the lives of most women come times, as when there is sickness in the family or when young children need much care, in which a great extra burden is thrown upon the domestic manager, making it imperative that someone shall come to her aid. Such assistance may be more or less voluntary and friendly, as when relatives extend their services, or it may be provided through the engagement of an outside worker. How service of the latter sort for which there is always a considerable demand, can be supplied more efficiently than at present is one of the great problems of our day.

**Domestic
Service Once
Highly Prized
by Workers**

Women from very early times have hired out to help other women do their housework. When chances for a woman to earn money were very few this kind of opportunity was highly prized even though the work might be very hard and the hours long. There was once a common notion that poor people ought to be grateful to the well-to-do for thus making a gainful work out of which women in needy circumstances might get their board and lodging and a little ready money.

The employment of women in factories and stores, which we have already described, has opened vast opportunities for women who formerly must either have been married young or have gone into domestic service. In the workshop or business office the hours are shorter and more regular than the average home employer expects to grant. In many occupations the law protects the woman worker from unsanitary or unhygienic conditions and from the effects of extreme fatigue, which is recognized as a poison. In the workshop girls and women find companionship with each other, and their leisure time is

their own. Often the employer is an enlightened person who makes the employees feel that there are opportunities ahead of each and that even the humblest worker is just as essential to the enterprise as the chief executive is. Work for wages outside the home cannot fail to appear, from these circumstances, to be more attractive to many women than domestic service. Girls, as a consequence, no longer seek, as they once would have done, to become household servants. In most American communities there is always a shortage of this kind of help. Wages for domestic workers have steadily gone up, but still the average young woman prefers the store or shop. It seems certain that while we shall always need more or less domestic service, more and more of the world's home-makers will be thrown back upon their own resources—and not always to their disadvantage.

**Greater Attrac-
tions of the
Shop, Office
or Factory**

The trained servant is the servant of the future—one who has learned under competent instruction to do all the various household tasks in an effective manner. Such a servant expects to be treated neither as an "inferior" nor as an "equal," but as a self-respecting employee whose hours and duties should be as carefully regulated as if she were hired by the management of a department store. Ordinary domestic service, as it has been irregularly and unsystematically conducted up to this time, is not to be recommended to any girl who can get anything better to do. As, however, this service becomes professionalized, so that the cook or chambermaid is as highly respected as the trained nurse, it will furnish very desirable employment for large numbers of women. The preliminary education and the training of experience in the household of others will be particularly useful to those young women who will themselves later become independent home-makers.

**The Trained
Servant of
the Future**

Employment of men as personal servants is less common in the United States than in some other nations. Japanese and Chinese "boys" in some localities take the

Men as Domestic Servants

place, to a limited extent, of the usual women domestics. A few families, mostly in the very large cities, employ butlers—aristocrats of household service who command wages of from \$50 to \$100 a month in addition to their board and keep. They are expected to be persons of great dignity and to “keep their place” rigidly. When in an amusing one-act comedy a butler, before whom husband and wife have agreed to quarrel as a means of getting a court witness to “cruel and abusive treatment,” shows signs of possessing human feelings and emotions, both his employers turn on him and discharge him forthwith. More than perhaps any other employee the butler is supposed to be a servant first, last and all the time, and only incidentally a human being. Occasionally a wealthy bachelor indulges in the luxury of a valet to look after his clothes and other effects. These lines of employment, as a general thing, run counter to the native American spirit and are reserved for men of foreign birth and breeding. The one exception is the chauffeur. The mechanical fascination of the automobile has appealed to the imagination of thousands of American boys, and many of those who have obtained the automobilist's license are glad to enter domestic service in this capacity. The chauffeur's wages are considerably higher than those of the hostler whom he supplants, and his position is more nearly that of an employee and not a dependent.

The Chauffeur

In well-to-do families the tutor or governess is a professional worker who is well paid, as a rule, and has a pleasant situation with little that can be regarded as “menial” attached to it. Young men recently graduated from college are often glad to accept these resident or traveling tutorships. The governess is a highly educated young woman of good manners and acquaintance with the accomplishments of civilized society. Another domestic profession which has lately become prominent is that of the social secretary. Many well-to-do women, whose social activities exact a great deal of correspon-

dence, telephoning and other routine work, engage a young woman to take part of this burden. The social secretary must, of course, be a person of tact, intelligence, high breeding and knowledge of all the little niceties of social usage. Her work is considered worth at least \$25 a week and her expenses.

Experience as a governess or social secretary sometimes opens the door to higher and more remunerative positions. It may lead to a college professorship, to a post as social service executive or welfare worker, thus furnishing a much larger sphere for the young woman's activities. Advancement depends on her own energy and initiative. For the young man, however, a tutorship is invariably but a stepping-stone to his ultimate career. The youth of slender means tutors while he reads law, or prepares himself for a government or diplomatic position, or acquires other expensive technical training. Many a successful man made his start as a tutor.

**The Tutor
and the Social
Secretary**

CHAPTER XIII

AGRICULTURE AND FORESTRY

IT IS a mistake to suppose that the country needs more farmers than it now has. Better farming is very much needed, but that is quite another matter. It is easy, indeed, to see that if all our agriculture were very efficient, if there were no ignorant, slovenly and stupid agriculturists, far fewer people than at present would suffice to raise the present totals of crops. Many individuals in the cities, it may be argued, do not get enough to eat, so that both the size of the crops and the numbers of the workers producing them might profitably be increased. There is some truth in this argument, but it may be doubted if much more food than the present population could possibly consume would not be produced even by the present number of farmers if all their farming were as successful as is that of a few scientifically managed farms and experiment stations. From pioneer days down to the present American methods of farming have been notoriously wasteful.

Need of Better
Farming

Throughout the United States, as in all civilized countries, inventions and systematic methods are making it possible for the industrious and intelligent worker either to cultivate more land effectively or to get a larger return from a given piece of land than was possible in our grandfathers' day. The growth of the cities, however, over which many people are needlessly alarmed, will be likely to continue, and will even be promoted by the "better farming" of which so much is said. We speak of "needless alarm" felt concerning the drift of population from the farms, because conditions of city life are improving so fast that the old statements about the country's being

City vs.
Country Life

Mount Vernon Dec^r 4th 1793

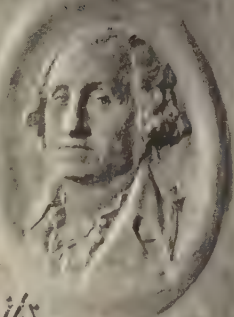
Sir;

The more I am acquainted
with agricultural affairs,
the better I am pleased with
them, insomuch that I can
nowhere find so great
satisfaction as in those
innocent and useful pursuits.

In indulging these feelings I am led to reflect
how much more delightful to an undebauched
mind is the task of making improvements on the
earth than all the vain glory which can be acquired
from engaging it by the most uninterrupted career
of conquests. The design of this observation is to show
how much, as a member of human society, I feel my-
self obliged, by your labors, to render respectable and
advantageous an employment which is more congenial
to the natural dispositions of mankind than any other.

George Washington.

To Arthur Young, Esq.



a healthier place of residence are no longer true.* Improvement of country life, too, has been rapid in many respects and in many localities. But it will have to continue to be so, if the rural districts are to keep pace with the towns as places of desirable residence.

For all that, farming will remain, for those who are fitted to engage in it, the most independent, profitable and enjoyable of occupations, and no family can be so well situated to make the most of life on this earth as the successful farmer's family. This favorable situation is not to be reached without struggle; by many men who do farm work it is never to be reached at all, and such are clearly in the wrong calling. Those who have physical strength and brain power to apply their labor to the land in a spirit of scientific enthusiasm get, as a rule, a better reward both in money and in formation of character than comes to any other class of workers who combine hand work and brain work. If a boy who has the native qualifications of a good farmer runs away to the city simply because he has heard that "farming doesn't pay," he probably makes the mistake of his life.

Farming
Does Pay

There are so many branches of agriculture, conducted on so many different kinds of land, that it would be hard to name a long list of the qualities which a young farmer in any given section should possess. A person who could not possibly succeed in directing the activities of a Dakota wheat farm, of thousands of acres, employing a small army of men during the harvesting season, may be able to give to chickens, or ducks, or bees, or small fruits just the patient, thoughtful care that they need to produce for the owner a very comfortable living. The reasonable cer-

Different Men
for Different
Localities

*The 1913 report of the New York State Health Department shows that the city baby death rate is 102; the country rate, 113. It is shown that 1 per cent of city children have lung disease, 3.0 per cent of country children; that only 5.1 per cent of urban youngsters have defects of vision while the victims of kerosene lamps number 21.8 per cent; that obviously underfed children in the city number 23.75 per cent; in the country, 31.2 per cent.

tainty of the crops on some of the irrigated sections of the West will just satisfy a methodical, precise person who would worry himself almost to death among the vagaries of the New England climate. In this big country the characteristic farmer's work in one place may be quite different from work of the farm in another locality.

Qualifications
of the Successful
Farmer

The farmer, whatever his specialty, should have an adaptable mind and considerable staying power. Almost any kind of agricultural occupation demands brain work as well as muscular work. The agriculturist must think as well as toil, and he must not be one of the kind of people who can think clearly in only one direction. He has to do many different things and to meet many different conditions of weather, growth of insect and parasite life, changes of popular taste, and ups and downs of the world's markets for agricultural products. The man who is incapable of changing his methods or plans quickly and of taking advantage of newly arisen opportunities will not, however conscientiously he puts in his time, arrive at prosperity on the farm.

Sustained
Effort Required
on Farm

Farm work of nearly every sort requires sustained effort at certain periods of the year. When planting must be accomplished in a few days to insure the crops' coming to proper maturity months later, and when the ripe crops must be gathered at once if at all, the farmer cannot limit himself to an eight- or nine-hour work day. He must have capacity to labor for weeks at a time, if necessary, with abbreviated allowance of sleep and under constant nervous and physical strain. It is these periods of excessive effort, often required of constitutions that are naturally fitted only for regular hours of work, that account in large measure for the number of farmers who are prematurely old and broken in health amidst conditions that might be supposed to be more healthful than work in factories or stores. Planning may, of course, reduce the severity of the strain at such times, but, after all, nature has no respect for the eight-hour day. When

a few extra hours' work will save hundreds of dollars the farmer knows that he must make the exertion. In the hard labor thus entailed at certain seasons there is a secondary danger, because when it is all over and the agriculturist is no longer absolutely required to hustle he may be tempted to take things easier than he should.

One would select, then, for farming the youth whom nature has made strong, enduring, careful of his health and vigor, and not easily broken in spirit and temper by prolonged effort. It is foolish—though it is often done—to encourage a weakling to go into agricultural work on the ground that it “will build him up.” For such a little amateur gardening may be valuable outdoor exercise, but his livelihood should be made where he will be protected from the effects of fatigue and overstrain. It is only the boy who is already strong who grows stronger under the conditions of farm work.

**The Farm No
Place for the
Weakling**

More city boys and fewer country boys ought to be trained to be farmers. The popular love of a contrast in everything pictures the urban youth as invariably pale, sallow and spectacled, while the lad on the farm is always described as robust, hearty and athletic. In real life, however, it is not so at all. Inheritance has quite as much as surroundings to do with the physical make-up of individuals, and you will find plenty of both types of boys in either city or country. Everybody knows how often a husky, active city-bred boy, with a pronounced taste for outdoor life, too impatient and full of vitality for the routine of the factory or business office, goes dissatisfied from one urban occupation to another, never seeming to fit anywhere. Such a youth would have been far better off if he had been sent to an agricultural college and there prepared for one of the agricultural professions. Every-one, on the other hand, has seen a quiet, not very robust or vigorous country boy accept the farmer's life for no reason except that he inherited it, and gradually become one of the sickly or indolent type of agriculturists.

**More City Boys
Should Be
Farmers**

**Vocational
Guidance of
the Future**

It is greatly to be hoped that the vocational guidance of the future will prevent many boys from going to farming simply because their fathers are farmers, and that on the other hand it will encourage to enter this noble line of vocations many properly qualified youths whose parents and grandparents have known only city life. This freer intercourse between agricultural and urban classes of society is already being helped by the improvement of living conditions in the country, whose dwellers have telephone service, rural free delivery, automobiles, facilities for social enjoyment, and many other privileges that were once supposed to belong only to the crowded centres of population. The frail country boy, on the other hand, need not think of himself as a certain victim of tuberculosis if he goes to work in the city; following a routine occupation with a short work day, and living according to rules of health that are now generally understood, he may be much better off than on the farm.

**Agriculture a
Scientific
Profession**

If the agricultural situation were ideal every farmer would be a trained professional. Agriculture, as all the world now knows, is a scientific profession. It has its colleges, presided over by eminent scientists and equipped with wonderful laboratories, in most American States. Uninformed individuals here and there still poke fun at "farming by book learning," but most talk of this kind has ceased. Book learning has achieved too many triumphs all over the continent of North America. The farmer who reads his agricultural journals knows that science has taught farmers just like himself to make their labor twice and three times as effective as it was before; to grow crops successfully on arid land where once nothing succeeded; to turn the loss from milch cows into profit by improvement of the breed or other means; to prevent by soil analysis the loss of thousands of dollars through planting crops which the soil, no matter how fertilized, is unfit to grow; to work a thousand and one other marvels which lift the modern farmer quite out of

the class of the European peasantry and make him take rank with the representatives of the engineering professions.

This broad view of farming makes it important to urge that every boy who seems to be qualified for progressive agriculture should, if the thing can possibly be managed, get the benefit of courses at an agricultural college. This may not always be feasible. The boy on the farm may have to stay at home and help a father who cannot carry on the work alone. The parents of the city boy with taste for farming may be unable to finance him through several years of schooling beyond the grammar school. Yet in farming as in all other professional work adequate preparation counts for more and more each year, and the youth who hopes to be efficient should aim to get the best that is offered.

**Necessity for
Education at
Agricultural
College**

But the higher agricultural education, fortunately, is rather less expensive than most professional training. In most States there are agricultural schools or departments of the state university at which the tuition is free or nominally free for residents of the State. Living expenses are less at these institutions than at the great Eastern universities. The agricultural colleges are growing fast in attendance. With the constantly increasing wealth of the farming classes this growth is apparently bound to continue. It used to be a subject for frequent jest in the newspaper that so few graduates of agricultural colleges ever tried to make a living from farming—that they became lawyers, physicians, merchants, bankers, even writers of books and magazine articles on agricultural topics, but never by any chance practical farmers. To-day there is no ground whatever for such jokes since thousands of the most successful of American farmers owe their superior methods to what they learned at an agricultural college.

**Moderate Cost
of Agricultural
Education**

Scientific education in agriculture, fortunately, is not confined to the agricultural colleges and experiment sta-

tions. The day is passing when country schools neglect altogether the interesting pursuits which most of their graduates will follow, and teach only the subjects that prepare for professional or clerical life in the cities. All over the country there is a movement for vocational high schools making a specialty of agricultural education though not excluding other subjects, and for presentation of simple agricultural instruction in the district schools. The pupil who lives in a progressive neighborhood where this movement is in force, has acquired by the time he is eighteen an elementary knowledge of plant life, soils, seed selection and testing, fertilizers and manures, greenhouses, hotbeds and cold frames, animal husbandry and dairying, farm carpentry and blacksmithing, forestry and road building. Not all districts, as yet, have these advantages for the future farmer, but there is no doubt that they are coming and that with them will come intelligent guidance for country boys and girls, so that it may be discovered which among the children of the "little red schoolhouse" ought to become trained farmers and which should seek other occupations. For the education of adult agriculturists farmers' institutes, often conducted by the grange, better farming "specials," sent out by railroads, and other agencies of betterment are doing a really wonderful work. The entire nation is awakening to the truth that American farming methods in the past have been thriftless and unscientific, and that the farmer in many cases has simply sold off the original fertility of the land without putting anything back to make it valuable to future generations.

**Agricultural
Instruction in
Public Schools**

**A National
Awakening**

The trained farmer must, as a rule, choose between two general types of agriculture: large scale farming, devoted to the growing of standard crops such as grain, cotton or potatoes, on big areas of land, or intensive farming, devoted to making a comparatively small tract of land yield a large return of specialties. The farm that is neither one nor the other of the two types is harder

and harder to cultivate profitably; it is not big enough to warrant the buying of expensive labor-saving machinery, and is so big that the owner who tries to work all of it without such machinery does nothing thoroughly. To farm successfully on a large scale the agriculturist must be a good business man, able to buy his seeds and machinery to advantage and to sell his crops in the best market; a skilful mechanic and foreman, competent to direct very elaborate mechanical operations, and a tactful leader of men, employing at times during the year very large gangs of rough and easily dissatisfied laborers. The great wheat farms of the Middle West are characteristic examples of large scale farming. The possible profit on a single acre of land is at best very small, but by system in working a large area the wheat farmer clears up a very handsome living. The same is true of the proprietors of corn fields in the central tier of States, of the cotton planters of the South and the potato growers of northern Maine.

Farming on a
Large Scale

The intensive farmer, instead of raising ten or fifteen dollars' worth of grain from an acre, has for his pattern the "thousand dollar an acre" farms, of which a few are found in the neighborhood of great cities. To farm in this way requires not only a knowledge of the principles of scientific agriculture but a disposition to be very careful, precise and painstaking in all operations. The farmer watches anxiously for any unfavorable symptom among the special crops he cultivates. He takes every possible precaution to eliminate the chances of drought, frost or mischief from insects. Misfortunes are always ready to befall him; too easy-going and optimistic a temperament may ruin him. The boy to get good results from small scale farming is one who has always shown himself thorough, conscientious and watchful over his own possessions. For such, if his tastes are scientific, intensive agriculture may be a nearly ideal calling.

Intensive
Agriculture

Location is an extremely important matter in agricul-

ture and one in which prospective farmers need much more intelligent guidance than most get. The man who fails at one kind of farming in one place may make a great success of another kind in another place, and still work just as hard and conscientiously in both places. This subject is too big for us to consider it at length. Let us simply note briefly that the two great factors are on the one side geology and climate and on the other side density of population and means of transportation. From a study of the pebbles under a farm and of the sunshine over it the expert can tell pretty closely what the land will and will not do for its owner.

The underlying rock formation and in particular the mechanical composition, that is, the relative proportions of boulders, gravel, coarse sand, fine sand and silt in the soil strata between bed rock and the farmer's top dressing, determine in very large measure the kind of crops that can be made to grow on a given tract of land. If coarse sand predominates the soil expert can tell off-hand what will and what will not grow there, given proper irrigation and cultivation. Millions of dollars have been wasted by efforts to cultivate certain crops on land of unfit mechanical composition, for it usually seems to the unscientific person that careful cultivation and generous use of fertilizer must overcome the original defect.

Different sections of the United States are of very different geological formation. Along the Atlantic coast extends a wide sand belt. Back of it is the clay, or Piedmont belt. Then come the rough, upturned lands of the great Appalachian region. Most of the Mississippi Valley is an old sea bottom, formed by the receding of the waters of the Gulf of Mexico. Beyond the Great Divide the western tier of States are on land that is geologically young, with sharp jagged mountain ranges and valleys and plateaus covered with ashes from extinct volcanoes. Over eastern Canada and extending down into New England is a region said by geologists to be the old-

Importance
of Location

Geological
Survey of the
United States

est on the continent, with very hard rocks, often coming close to the surface, and a gritty soil corresponding to the rock bed. These geological conditions, which are described in many school geographies, are something the farmer should know about and take into consideration when he selects a new farm or undertakes to make a living from the one which he has inherited.

Rainfall and temperature are, of course, other great factors in determining what will grow on land. Crops must have sunshine and sufficient warm weather, and they must have water. A large section of the United States has less than fifteen inches of annual rainfall, and in the drier regions the only way to make use of naturally fertile land is to impound the rainfall in reservoirs from which it can be spread on the irrigated farms below at regular intervals. Sometimes as an alternative it is possible to bring the water to the surface by means of artesian wells and thence to distribute it among farms. Most of these irrigating projects, which have made agriculture possible in large areas of the West, are under control of the United States government. Many agricultural experts believe that much of the farming of the future even in sections having a greater rainfall than fifteen inches will be supplemented by irrigation in dry seasons, for on account of irregularities in the supply of rain crops are often lost or injured in the fertile districts of the Central and Eastern States. A wide tract of land just east of the Rocky Mountains has rain enough to make good grass for cattle and sheep but not enough for the ordinary crops. This was formerly the nation's greatest cattle range, but much of it is now being taken up by farmers who raise on it special drought-resisting grains, such as Kafir corn and durum wheat, imported by the United States Department of Agriculture from arid regions of the Old World.

**A Study of
Rainfall and
Temperature**

**Irrigation of
Farm Lands**

Intending farmers should familiarize themselves with the many wonderful developments of agriculture in the

Wonderful
Crops of Differ-
ent Sections

different parts of our country: the cultivation of rice and early garden truck on the flat prairie lands of Texas and western Louisiana, where a vast reservoir of pure sweet water lies only a few feet below the blistering surface, ready to be pumped up and spread over the fields; the orange and grapefruit industry of Florida, into which many northern people have put their time and money; the apple and prune growing of the Northwest, where advantage is taken of the extraordinary richness of volcanic ash; the raisin industry of southern California, and the green corn for canning which can nowhere be raised so satisfactorily as in western Maine. These and many other successes of scientific agriculture are described in the agricultural journals and other literature by means of which the intending farmer might profitably inform himself.

Locality and
the Middleman

It is not enough for the farmer successfully to raise the crops in which he is interested. He must be able to sell them to advantage. If his farm is only a few miles outside of a city he may be able personally to market his produce. His wagon in the early morning goes from the farm to the urban provision dealer, and its contents begin to appear on the consumer's table by noon of the same day. If, on the other hand, the agriculturist's holdings are far from any large centre of population he must depend on the railroads to get his crops to the people who can use them. Generally in such cases, because the farmer cannot personally be troubled to arrange and follow up his shipments by freight or express, the goods between their leaving the farm and reaching the consumer are handled by several middlemen. Each middleman must receive his profit, so that the difference between the price paid to the producer and that paid by the consumer is often very great. That is one of the principal causes of the high cost of living about which so much has been written. Conditions, it is easily seen, are favorable for the farmer situated near the city because, if he deals

directly with his customers, he gets a price that is nearly if not quite as big as that paid to all the middlemen and to the farmer in the more distant locality.

It is often good business, therefore, for the farmer who practices intensive agriculture to have his farm within easy reach of a large city or chain of cities. He may have to pay more for his land but his chances of large profits are very much better than if he must depend on what the middleman is willing to offer him. Such a statement applies especially to the raising of vegetables, fruits, dairy products and other crops on the intensive plan. Farming on a large scale, raising either the staple crops such as corn, wheat, oats and cotton, or certain fruits and vegetables, may be profitably carried on at a distance from the centres of population, because American freight rates are comparatively low and because the large producer can generally make favorable terms with the middleman or in some cases act as his own middleman. Co-operative associations of farmers in some parts of the country exist for the purpose of advantageous buying of fertilizers and other supplies, and profitable selling of the crops. Farmers at some distance from a city are beginning to see an opportunity in keeping in direct touch with the consumer through the parcel post system. Location studies are becoming frequent in commercial business, for it is seen that the success or failure of a newly established factory or store will depend very largely on its position. A young man buying a farm should certainly not exercise any less care in selection than does his commercial contemporary. If he knows farming and has a well-situated farm there ought to be no doubt about his making it pay. When the question of the profitability of farming was put to J. Lewis Ellsworth, secretary of the Massachusetts State Board of Agriculture, he replied:

Where It Is
Most Profitable
to Locate

Care in
Selecting the
Farm

“It will be profitable, provided, first, you have a definite idea of what kind of farm you want and what you

Conditions of
Success on
the Farm

want to grow; second, provided you are enthused with love for the soil, are convinced of its productiveness and are resolved to pin your faith to its possibilities; third, provided you are not afraid of ten hours of hard, healthful work; fourth, provided you are willing to put your occupation on a level with any other business enterprise in which you might engage, be laborer and capitalist, make the products pay you wages and the investment pay you dividends.

"Account strictly for every quarter-hour of your time and every cent of your money. Exercise judgment, foresight and wisdom; do with your hands only what your head cannot possibly do. Study your soil, subsoil, drainage, exposure, crops, stock and markets; study yourself and the weather. Be optimistic, honest, shrewd and politic; above all, be honest.

Attractions of
the Agricultural
Calling

"If you are prepared to accept a life which calls for these qualifications, by all means buy a farm and farm it. You will need a few hundred dollars to make a start, and then you will have the satisfaction that the start is toward a home. What that last word means will come back to you a dozen times a day, as the weeks and months go by, and you work hard and sleep soundly, and pay in a little on the balance, if there is any. This sounds easy, does it not? It is easy, if you only adopt the right mental attitude; let the successes annihilate the failures that cannot be avoided. Labor under the righteous standard set by our first President: 'Agriculture is the most healthful, most useful and most noble employment of man.' "

The tropics will supply more and more of the food consumed by people in the temperate zones as lands now cultivated prove insufficient for meeting the demands of civilized countries. The strong sunshine of the equator makes the earth remarkably productive and under scientific methods several crops can be raised in a year. The conditions of living in tropical countries have kept white



WHEN THE DAY'S WORK IS DONE ON THE FARM.

people from settling there in any great numbers, but since the sanitary engineers at Panama have shown us how to keep tropical diseases under control, it is to be expected that many Americans in the near future will look into the opportunities of agriculture in the West Indies, Mexico, Central America and South America. Land in some of these countries is very cheap, in others it is held at very high prices, but in most kinds of farming there is good chance for a career if the American is prepared to meet the conditions. This has been proved by the wonderful success of the banana and sugar plantations of the United Fruit Company in Jamaica and Costa Rica, the small truck and fruit farms developed by Americans on the Isle of Pines south of Cuba, of many enterprises in Cuba itself. Even such a colonial possession as Porto Rico, which is densely populated and for the most part in a high state of cultivation, has need of American methods. As the writer, after a tour of special investigation, reported to the United States government: "Porto Rico holds out a comfortable living to the truck and market farmer, the bee-keeper and poultry raiser, the cultivator of various berries and the maker of jellies and preserves. This last, indeed, almost all of the foregoing, are suited to the girl as well as the boy. At the San Juan market I found common table vegetables sold which were imported from the States. The island could easily raise them all. Here again businesslike methods must prevail, or the educative and vocational purposes will fail."

Farming in
the Tropics

Outlook of
Farming in
Porto Rico

FORESTRY AND THE FORESTER

Closely allied to agriculture are the occupations connected with the development and maintenance of forests. Only within recent years have these vocations had any considerable standing in the United States. The early settlers found more than 850,000,000 acres of the present area of the country covered with woods which they proceeded to cut as fast as they needed the land to grow crops

upon or the lumber for use. The timber at first was of very little value, and the problem was to get rid of it as efficiently as possible. The settlers who crossed the Alleghenies in the early nineteenth century and took up tracts in Ohio, Indiana, Kentucky and Tennessee struggled valiantly to remove vast forests of black walnut, sycamore and gumwood, which to-day would be worth far more than is the land they stood upon.

Great Value
of Modern
Forests

In western Connecticut a farmer the other day pointed proudly to a fine stand of white pine covering a hillside.

"How much do you think it is worth?" he asked a guest.

The latter, to keep up the conversation, replied, "Well, perhaps ten thousand dollars."

The New England man looked at him quizzically, as he said:

"Day before yesterday I refused an offer of eighty thousand dollars for that pine on the stump. You see my grandfather, when all his neighbors were clearing off their land to raise oats and rye, was either so lazy or so far-sighted that he left his land alone, and for that reason I am one of the richest men in this neighborhood. These hills will grow pine timber better than anything else in the world."

Pioneer Waste
of Timber
Resources

Elsewhere in the country, however, a different story must be told of the days of our grandfathers. If the wood had any commercial value then the best logs were hauled to the nearest stream, floated down to a market, and sold. All the rest of the woods, and often the big tree trunks themselves, were burned, and crops were started among the blackened stumps. So enormous were the resources of the new country that no one dreamed a timber famine could ever be possible.

About forty years ago, however, a few more far-seeing persons began to take stock of the timber still standing and of the amount of cutting that was going on. They soon arrived at the conclusion that if this country did not take measures to cultivate its forests as nations of

the Old World have done for many years, the time might come when hardly any wood would be left in a naturally well-timbered land. It was noticed at the same time that the prices of different forms of lumber were growing higher and higher, and that often it was more profitable for a landowner to leave his property in timber than to attempt to raise crops or herds of cattle on it. Presently the nation entered upon a policy of taking over areas of wild land and maintaining them as national forests, from which full-grown trees may be cut and sold from time to time but which may never be totally stripped, as usually happens when a lumber company cuts over an area of private land. A few individuals, at the same time, began to practice scientific forestry, taking measures to promote the growth of their trees and to cut them only at maturity.

**Movement for
the Conserva-
tion of Our
Forests**

The result of this movement for conservation of our forests is that to-day more than one hundred million acres of timber land are under the control of the Forest Service of the United States government, that many of the States have forestry departments and small forested reservations of their own, and that the number of private forests which are scientifically managed, is growing very rapidly. The care of these forests has created a very considerable demand for trained foresters and forest rangers. No vocation to-day has more fascinating opportunities for the young man who likes outdoor life.

The less highly skilled and lower paid of the two occupations is that of the forest rangers who are employed on large forest reservations to do the practical work of patrolling, fire fighting, lumbering and many other duties. The rangers in government service receive from \$900 to \$1,500 a year. Their occupation, especially in the Far West, where the largest reservations are, is not without its dangers and hardships. On many of the ranges which are lightly timbered, private individuals are permitted to graze their cattle and sheep; it is an important duty of the rangers to keep order among these tenants.

**The Forest
Ranger**

**The Professional Training
of the Forester**

The forester, on the other hand, is a highly educated, professional man. He should start with an inborn love of the woods and of "roughing it." His health must be good and he should have shown ability to direct others. At two score or more of universities and agricultural colleges technical courses in forestry are offered, usually of four years' duration. Many of these schools maintain an experimental forest on which the students live during part of their course, acquiring practical knowledge of silviculture, or the growing of trees, as well as of logging and the disposal of waste products.

**Salaries of
Foresters**

After graduation the young forester seeks employment either on a national or state forest, or with a private owner or lumber company. He cannot expect to settle down and live in one place. His headquarters will probably be shifted frequently, and if he marries young the problem of where to keep his family may be perplexing. In the government service he will start as an assistant at an annual salary of about \$1,100, which will be gradually increased up to \$2,000. Promotion is ordinarily to the grade of forest examiner, paid from \$1,600 to \$2,200, or to forest supervisor, from \$1,400 to \$2,700. The salaries of state foresters vary from \$2,000 to \$4,000, most of them averaging about \$2,500. Assistants in their offices start at about \$1,000, rising to \$1,800 or \$2,000. Various salaries are paid to the highly skilled foresters who are employed by owners of large estates, lumber companies, mining companies and some railroad companies to direct the policy of developing their woodlands. A professional occupation which has lately come into some prominence is that of the consulting forester, who maintains an independent office for preparing and executing plans for treatment of forested areas.

The movement to preserve our forests is now so well launched that the forester's profession is assured of a standing in all parts of this country. It is now generally realized that the wood supply of the future must be

guarded and, where possible, increased by application of scientific methods. Not in the United States alone, but in the Dominion of Canada with its immense forests, and in Mexico and Central America which have comparatively untouched resources, will the future have abundant work for well-trained foresters.

STOCK BREEDING

Animal industry, the raising of cattle, sheep, swine and other domestic animals, is sometimes carried on in connection with agriculture, sometimes pursued as a separate occupation. Most farmers keep at least a few cows and pigs for family use, and many give about equal attention to their crop products and animal products. For practical reasons, as for keeping the land continuously fertilized, it is generally considered good husbandry to combine the two industries on the same farm.

Animal
Industry and
Farming

Much, however, of the great business of supplying the world with beef and mutton, hides and wool, is conducted without reference to crop-raising industries. Wilder and less well-watered districts often bear sufficient herbage to support vast herds of cattle or flocks of sheep. The ownership and management of these creatures constitutes the business of stock raising.

When English-speaking settlers first passed the Mississippi River they found vast treeless plains on which wild cattle and horses, the descendants of importations from Spain, roved at will. It was a comparatively easy matter to round up a herd of these cattle and by introducing better stock among them presently to have a breed whose meat and hides would be very valuable. The eastern part of the region was too fertile to be withheld from agriculture, but the semi-arid western parts, those bordering on the Rocky Mountains, seemed ideal for cattle raising. On great ranches of northern and western Texas, eastern Colorado and Wyoming, and the drier counties of Kansas and Nebraska, owners of herds em-

Growth of
Cattle Raising
in This Country

**The Immense
Packing
Business**

ployed their rough-riding cowboys to protect their property from marauders and coyotes. The meat of these range-fed cattle was not particularly tender and palatable; so it became the custom each year to round up a portion of the herd and drive it across country to the feed lots of Kansas and Nebraska, to be fattened on grain, prior to being killed in the slaughterhouses of Chicago, Kansas City or Omaha. Out of the growth of this cattle industry of the plains came the immense packing business of several central cities. This, too, has been the source of much of the leather used in the shoe manufacturing shops of New England and St. Louis. Great flocks of sheep, in the years following the Civil War, overspread the northern part of the same territory: parts of Wyoming and the Dakotas, Montana and Idaho.

**Decline of
Stock Raising
in This
Country**

The supply of cattle and sheep that can come from this district is now much smaller than it formerly was. Much of the land, as we have seen, which was once supposed to be suitable only for grazing, has been found capable of producing the drought-resisting crops, especially when the methods of "dry farming" are followed. Where the land is still unsuitable for any form of agriculture the grass has often been completely destroyed by pasturing too many animals upon it. The sheep in particular are often very destructive to the scant vegetation of the plain, pulling up the grass roots as well as the stalks. Areas thus cleared of grass have been turned into desert by the winds and the sand has been blown into the few watering-places where the cattle used to drink. These and other causes have very seriously interfered with the business of the present-day plainsman. They make his a business which, as a general proposition, would better be avoided by young men.

The exception to this statement appears in the case of the youth who is quite willing, after learning the cattle business in the United States, to go to some other country, if necessary, to follow his occupation. This is what

some young men who have money invested in the industry are now doing. They have transferred their interests to South America. While some districts of the continent the other side of the equator are already well occupied by grazers, as northern Argentina with cattle and Patagonia with sheep, extensive areas elsewhere, well grassed and well watered, await the coming of energetic North Americans. There they will have for their neighbors the enterprising Scotsmen who have pushed their herds clear back to the Andes. It was one of these Scottish herdsmen with whom the American explorer, Charles Welling-ton Furlong, stayed when he made his survey of the glacier-crowned Lake Argentino. When this denizen of the lonely wilderness was asked what he would like sent him from the United States, he replied that the most useful thing he could think of was one of the dories with which Gloucester fishermen ride the North Atlantic waves—a gift that finally reached him for use on his inland lake after eight hundred miles of overland travel in an ox cart. Such isolated spaces of the world as this will henceforth more and more supply the beef and mutton needed by urban hotels and private families.

Except for the young man who is willing to take this chance of leaving his own country, there is comparatively little inducement to study stock raising as a separate occupation. It is generally believed, however, that much more stock will be raised in the near future in connection with general farming: cattle, certainly, and sheep, possibly, though American farmers have long had a prejudice against the sheep. How the herds and crops should be worked together is taught at every good agricultural school.

Outlook for
the Cattle
Raiser in South
America

CHAPTER XIV

MINERS AND MINING

THE extraction of metals and minerals from the earth's crust has given rise to occupations which in this country employ about a million people. Like the agriculturist the miner is engaged in producing raw materials for later use in the industries. The farmer has an advantage over the mine owner in that by intelligent methods he may continue to extract wealth from the soil indefinitely, while the processes of mining and quarrying exhaust nature's supply forever.

Few young people are brought up in a community that is not near mines of some kind. Many of the cities and villages of the Western States exist only because the rich crust of the globe in that geologically new region yields many valuable substances: the gold and mercury of California; silver of Nevada and Utah; copper of Montana and Arizona; coal of Colorado; mineral oil of Oklahoma and Texas, and many other mining products that are prominent in every State west of the Mississippi. Under the central prairies are extensive fields of soft coal and the ore deposits of the zinc mines of Missouri and lead mines of Illinois. On the northern peninsula of Michigan are the world's richest copper mines, and near by them, on both sides of Lake Superior, the vast open pits from which millions of tons of iron ore are taken to feed the furnaces of Gary and Pittsburgh. The South, too, has its mining districts: the coal and iron centres of Tennessee and Alabama; the gypsum and sulphur fields of Louisiana; bauxite and kaolin beds in Georgia and the coal-producing sections of the Virginias. The prosperity of

Pennsylvania has been largely founded on its iron, coal and oil. New Jersey and New York State have fewer deposits of metal but many minerals that are extracted, as witness the clays from which potteries are made at Trenton, and the graphite mines of the Adirondacks which furnish black lead for our pencils. New England, one of the world's poorest districts in metals, has nevertheless abundance of minerals and stones that are useful in industry: the marbles of Vermont and western Massachusetts; granites of New Hampshire, Maine, eastern Massachusetts and Rhode Island; soapstone, asbestos and isinglass. Canada, too, is a dominion of many mines: from the coal and iron of Cape Breton through the silver and lead mines of Cobalt and iron mines south of Hudson's Bay to the gold and silver ores that abound in British Columbia.

Minerals and
Metals

Therefore most of the boys and girls of America who observe the world about them, know a little at least of the actual processes of mining or quarrying: the descent of overalled workmen into pits, the ceaseless drilling with power-driven drills, the frequent detonations of dynamite blasts. It is also very generally known that while these industries are often hugely profitable to their owners and managers, the rank and file of employees are engaged in hard, dangerous labor at wages that are rarely satisfactory, as a rule, until considerable pressure can be brought to bear upon the mine owners to make them so. The ordinary miner's life, in all lands, is likely to be a hard one. In this country its hardships have been somewhat ameliorated by law and custom, but it is not usually a calling which a father would like his son to follow. In brief, there are better and safer occupations than being a "hunkie," exposed to many perils, expected to trade only at the company's store, and liable, in case of a labor disagreement, to have one's whole family exposed to the fire of the militia man's machine gun.

The Life of a
Common Miner

If a bright American boy is going into mining he finds

**Training of
the Mining
Engineer**

the best openings through qualifying as a mining engineer. That means professional education: a severe course at a technological school, followed by an apprenticeship at the mine. The prospective mining engineer must learn the principles of prospecting and exploring; analysis of samples; special metallurgy of iron, copper, nickel, lead, zinc, mercury and the minor metals, together with wet and dry methods of ore dressing, concentration and milling; the technical problems of anthracite and bituminous coal mining; study of alloys and amalgams; the application of electricity to metallurgy, as in aluminum production; also the commercial side of marketing the mine's products.

**Respect for
the Mining
Engineer**

After graduation from the school he may have to win his reputation in the loneliest of wild Rocky Mountain gulches, in distant parts of Mexico or Alaska, or even in the far-away Rand. Wherever he goes, however, rough men with practical experience will be inclined to accord him considerable respect, for the mining engineer has accomplished wonders since first the crude methods of the old mining days came under scientific consideration. It is due to the engineers, for instance, that low grade ores which used to be thrown away have now become a source of great profit, and that even the tailing dumps of old mines have proved to yield their quota of metallic wealth. The young engineer must be on the lookout, however, not to be imposed on, or he may fare like a certain college man who without previous experience was placed in charge of a mine in the Northwest. At the beginning of winter his foreman came to him and said that as work was slack part of the force would have to be discharged unless it should seem worth while to build a certain tunnel between two pitmouths. Thinking to play the Good Samaritan and keep the men contented, the new manager said by all means to dig the tunnel—a work which kept a large gang of the men busy all winter. When, however, the snow had melted, practically all the tunnel supports



COKE OVENS IN TENNESSEE.

were left sticking out into the air. The burrowing had been done through a gulch filled with snow and was undertaken by the foreman only for the purpose of making work for the miners during the dull months.

Inflexible honesty is a characteristic of the successful mining engineer. Mining prospects are frequently used as a means of defrauding the public. The engineer must be constantly on his guard to make not only truthful statements but statements which cannot be misinterpreted by promoters seeking to hold out roseate hopes to prospective investors. Sometimes offers of employment may come from one of the "exploration companies" that have been organized to conduct searching expeditions in previously unexplored regions. Before entering into any such arrangement the engineer must assure himself that the principal area of exploration is not in the clients' pockets.

Essential
Quality of the
Successful
Mining
Engineer

Management of important mining properties now generally falls into the hands of trained men. There is, however, considerable chance for men who have not been professionally educated, especially in the management of smaller mines. The salaries appear to be only moderate. In Ohio, for example, a State which has many comparatively small mines, three hundred and twelve managers are reported as averaging about \$1,500 a year. Against such a figure might be set the \$100,000 said to be paid to the general manager of the world's most famous copper mine.

Managers of
Small Mines

The movement for vocational education will undoubtedly result in many schools of mining being established in connection with public school instruction in regions where mining is a prominent industry. A pioneer school of this sort has been established at Platteville, Wisconsin, at which boys of high school age learn general geology, the mechanics of materials, metallurgy, mining economics, mining methods, surveying and prospecting, hygiene and first aid to the wounded. Some of the cor-

respondence schools give much attention to mining subjects.

**Unfavorable
Conditions of
Mine Workers**

The actual work of mining is done by men who in skill and wages rank with highly skilled mechanics in other lines. It has been observed, however, that no other class of high-waged men lead so hard a life both while at work and in their home circumstances. The labor is usually of a severe character, with considerable liability to accidents. Even in open pit mining the dust and other factors are unhealthful, while those who toil in closed pits are shut out from sunlight during their shifts of eight or nine hours and must breathe air that even with the most improved ventilation is not like that of outdoors. The home to which the miner goes, furthermore, is not always up to the standard that has become usual among prosperous wage earners. Mines are usually located in rough country. The mine is often the only industry. The land for miles around may all be owned by the company, so that there is no opportunity or incentive to the miner to acquire a little place of his own. In such cases he brings up his family in one of the company's houses in the appearance of which he takes little or no interest. He may even be required to do his trading at the company's store. These and other circumstances, which may be and probably will be improved in the near future, have made it difficult in the typical mining community for people to develop independent American citizenship of a high order.

**Labor Troubles
of Miners**

There have been many violent labor troubles in mining districts, several times resulting in conditions that verged on civil war. An American boy attracted to mining because of the good wage paid the skilled miner, must bear in mind the likelihood of losing time during strikes and shutdowns. Many mines are unionized and there the wages are fixed by mutual agreement between the union and the management. The scales of wages necessarily vary throughout the country. It is safe to say,

however, that a union miner, when he works, is better paid than most agricultural or forest workers of the same neighborhood, but that he has a much more dangerous calling than theirs and a greater liability to lose time either voluntarily because he feels unfit for work or compulsorily because the mine is closed, owing to labor troubles. In the coal fields of West Virginia it was shown at the time of the 1913 strike that a miner who was willing to work steadily could earn from \$3 to \$6 a day, good wages considering the locality. Other conditions, however, seem not to have been of a character to produce a contented citizenship.

Figures from all the coal mines of the State of Ohio give the following average daily wages: machine cutters, \$3.62; pick cutters, \$2.60; loaders, \$2.50; track layers, \$2.52; drivers, \$2.47; motormen, \$2.56; timber men, \$2.54; pumpers, \$2.38; cagers, \$2.45; trappers, \$1.23; other inside labor, \$2.39. In some of the Western mines wages are higher than in the East, but it must be remembered that living costs more in the former section. Much of the laborious work in most American mines is done by men who learned the trade from their fathers in foreign countries: Cornishmen, Welshmen, Germans, Galicians and others.

**Average Daily
Wages of
Miners**

The stone-cutting industries present a somewhat similar situation to the mines. The requirements of our expanding cities make quarrying a very important trade. It is well nationalized, for low freight rates have made it possible to transport building stone over great distances. Cities of the old time were almost always constructed of stone from the immediate surroundings. But in the making of almost any large American city of today may be noted specimens from the marble quarries of Vermont on the faces of the more pretentious buildings; those that are not quite so luxurious may be dressed with the clear white limestone of Indiana; the granite on another structure may be the "pink" or "ex-

**Expanding
Importance of
Stone-cutters'
Trade**

tra dark'' variety from President John Adams' old home at Quincy, or it may come from more recently developed quarries in Wisconsin or Georgia. The paving blocks were probably cut from the Atlantic coast ledges of Cape Ann. In the adjacent city of the dead are memorials from many sections where monument stone is cut.

Despite the competition of concrete, the demand for brick and terra cotta buildings is so enormous that the stone-cutting industry may be expected to continue to grow. It is even promoted to some extent by the increasing use of concrete, for much of the stone of many quarries is sent in the rough to the concrete mixer to be ground up and mixed with sand and cement. The industry requires less of professional assistance than mining. The rank and file of the employees are men of foreign birth or extraction, many of whom have learned their trade abroad: Scots, Scandinavians, Finns, Huns and Italians. They are not so well paid as miners but they earn fair wages. At Quincy, Massachusetts, a leading centre of the granite trade, cutters receive $37\frac{1}{2}$ cents an hour, or \$18 for a full week's work. Tool sharpeners get the same; paving cutters and blacksmiths a little more; derrick men a little less.

Wages of
Stone-cutters
Fair

CHAPTER XV

MANUFACTURING AND MECHANICAL WORKERS

HE word "manufacture" has been considerably changed in meaning in the past century and a half. It formerly signified, as those who have studied Latin will perceive, "making by hand." It now generally refers to processes of making by machinery.

Whether by hand or by mechanical devices operated by power, the raw materials drawn from the earth by the farmer, the woodsman and the miner must in nearly all places and at all times be made over to suit the needs of mankind. Nature produces very few things that are ready to use. Trees must be hewn or sawed into desired shapes before we can have lumber for our houses. Rough stone must be dressed, or clay shaped and dried or burned, for similar purposes. Even the skins and furs of wild and domestic animals must be artificially treated before they are fit for clothing and, as they are insufficient in quantity, substitutes must be found in vegetable and animal fibres which can be spun and woven. Only the crudest savages are content to subsist on the raw fruits, berries and roots of the ground and the wild beasts and fish which they are able to capture. To feed the millions, it is necessary that grains should be ground and bolted, fruits prepared to keep for weeks and months, meats and fish preserved in a form suitable for distribution. To transport these manufactured articles other manufacturers must produce vehicles and vessels of one kind and another. To allow the workers to pursue their labors into the darkness, someone must make candles, lamps, illuminating gas or electric light. A myriad of

Universal
Demand for
Manufacture of
Raw Materials

other wants which are only to be satisfied through manufacture are readily thought of, as one considers the difference between the life of highly civilized people and of savages in out-of-the-way parts of the world.

**The Wonderful
Industrial
Revolution**

Just how it has happened that this great work of manufacturing has passed and is passing from little shops operated by one or a few craftsmen to factories and workshops in which many men and women are employed at power-driven machines, constitutes a story with the details of which most of us are astonishingly unfamiliar. We are apt to be much better acquainted with the conquests of Julius Caesar two thousand years ago and the military evolutions of a handful of colonial fighters of 1776 than with the very wonderful revolution that has been in progress since 1769 when Richard Arkwright, an obscure barber of Nottingham, England, started the first cotton factory, equipped with a spinning frame of his own invention. Since that date, really one of the most important in human history, there has been rapid and continuous progress toward a condition in which the forces of nature, working through cleverly devised machines, will do nearly all the labor of making clothes to wear, preparing food to eat and building houses to live in.

**The Era of
Machinery**

We say "nearly all," because there are some processes, those especially in which the product is of an artistic nature, in which the skilful human hand will always be better than any machine. In general, however, it was the era of machinery which began when the age-old operations of spinning and weaving were first taken out of English homes and concentrated in shops worked by water power or steam power. It was a better age, too, that was inaugurated, in spite of all the labor troubles and unsanitary conditions that temporarily resulted when large cities grew up around the new factories. Often you may read laments for the good old days when clothes were made in the home, not only for members of the family but for sale to people in the nearby towns. What the

busy life of poor people meant to the children of those times, who needed schooling and play as badly as the boys and girls of to-day, is indicated in a sentence of a work written about two hundred years ago by Daniel Defoe, the author of "Robinson Crusoe": "Whereas, in the manufacturing counties you see the wheel going almost at every door; the wool and yarn hanging up at every window; the looms, the winders, the combers, the carders, the dressers all busy; and the very children, as well as the women, constantly engaged—indeed, there is not a poor child in the town above the age of four but can earn his own bread."

Manufacturing to-day covers a great number of occupations which have this in common, that they alter the character of materials to serve somebody's need. They range all the way from the ancient handicraft practiced by the individual worker who does everything in the manufacture from start to finish, to the large modern factory in which thousands of people perform each a set task that is only a small part of the total operation. Because the requirements of people all over the world are constantly increasing it is certain that manufacturing as a whole must continue to increase wonderfully—much faster than the ordinary growth of population. Some manufacturing trades, due to changes in fashion or supply of materials or other cause, may fall behind, but the American nation at large must become more and more of a manufacturing people.

**Wide Range
of Manu-
factures**

Every day there is a new idea about material comforts and conveniences. It is apparent that these do not minister simply to privileged classes, but that they are brought within reach of an ever-increasing number of persons. In our own country unfortunately, many people are still insufficiently fed and clad and live in wretched hovels instead of homes, but education and other means to remove the causes of poverty will gradually decrease the number of persons whose earning capacity is too low

**Daily Increasing Demand
for Manufac-
tures**

to admit of their buying the things needful to health and comfort. That improvement of conditions means more employment for busy factories. Similarly in other parts of the world, tribes and nations that once wore no clothes or shoes and that ate what they could grub from the ground or snare in the woods, are beginning to demand to dress and live like white men. While the United States is only one of several countries called upon to supply this growing foreign demand it is reasonably certain that Americans in the future will do more and more of the world's manufacturing.

The more important and desirable opportunities which all this manufacturing creates for American men and women include ownership and management of manufacturing enterprises, foremanship, employment at mechanical operations requiring a high degree of skill. Less desirable chances are made by the existence of machines requiring to be watched by those operators who are not called upon to exercise any considerable skill or intelligence. The range of compensation for persons thus employed extends from \$3 or \$4 a week paid to children and women operatives in communities which are without child labor and minimum wage laws, up to \$100,000 a year, the salary of the president of a great manufacturing "trust." Wages all along the line are higher in American manufacturing than in most other countries; they are not only higher in actual money terms but, as a comparison made by a British governmental commission has shown, they represent greater purchasing power. It used to be true that living conditions in manufacturing communities of the United States, while by no means ideal for the wage earners, were almost universally better than in other nations. In continental Europe, however, so much has been done of recent years to furnish model houses for mill operatives and to safeguard their old age with pension systems and other schemes of betterment that the above statement cannot be made so confidently as once.

Many boys are born to be manufacturers. When the father owns or manages a factory his vocation is quite as hereditary as his other property. Unless his son is evidently quite unfit for a manufacturing career he is trained from childhood to the expectation of succeeding to the business. It is a very natural feeling that the enterprise which a father or grandfather, who started as an ordinary workman in overalls, has built up through struggle and shrewdness, must be kept in the family. The result is that, especially in American communities which have been industrial for several generations, there springs up a sort of feudal class, composed of families, much intermarried, who own and run the mills. This situation may or may not be desirable. It at least must be reckoned with by the young man who feels that he has it in him to rise from humble work in the factory to become a leading manufacturer. If he does not know about it, those who advise him should tell him, in order that he may realize what odds he must face in his upward climb, especially if he remains in one of the older manufacturing cities.

**Hereditary
Vocations**

In places where manufacturing is just beginning to be done the avenues of opportunity may be rather wider open; though even there the mills or workshops are probably financed and, to some extent managed, by interests that have already become established in the older communities. Very great ability cannot, of course, be kept down by anybody, and even the poor young man of more moderate ability often rises into the class of manufacturers or mill managers by a fortunate marriage. Yet this warning needs to be given emphatically, that very often an ambitious young mechanic advances rapidly in a manufacturing establishment and looks likely, because of his energy and mental breadth, to come to the front, only to find the way blocked by a son of one of the dominant families who has sufficient competency "to hold down the job."

**From Mechanic
to Manu-
facturer**

Even after allowance has been made for the difficulties

Attractiveness
of the Career
of a Manu-
facturer

that stand in the way of most young men who aspire to become independent manufacturers, the attractiveness of such a position in life is so great as to render it remarkable that more boys of evident capacity are not deliberately trained, or do not deliberately train themselves, for this career. The head of a manufacturing business is usually a very important person in his community. He is daily in the midst of educational processes that make him in middle age a very broad, resourceful and, often, humane kind of man. He has a practical mastery over materials and machinery and over human beings. Most manufacturers acquire at least comfortable wealth and some become very rich. It is notable that once a man has learned to direct one manufacturing enterprise he generally has chances to take active part in allied businesses, in such a way that his "eggs are no longer in one basket." His own factory may lose money for a time, but his income is kept large by his other interests.

The same facts are true in a lesser degree of the people immediately below the chief owner of a manufacturing business: of the general manager, sales manager, purchasing agent, head chemist and others. The feeling among these officers is often that of a big family or of a social club. They hang together, share opportunities and are very careful whom they admit to their circle. Their salaries are large and the spirit of their group favors saving and investing in the exceptionally good prospects that frequently come to their notice.

The Boy Who
Will Make a
Manufacturer

The boy who, without the advantage of family connections, seems nevertheless likely to go far in manufacturing, combines mechanical and commercial tastes and instincts. Without the former qualifications he will almost certainly do better in a trade connected with distribution of commodities. The one chance of a poor boy to make himself indispensable in a manufacturing business is to be master of production, able to get results that no one else can get. If such an employee is seen also to be a nat-

ural trader it will soon be realized that he must be held and advanced, if only for fear that he will go elsewhere and start up competition. In school systems which have competent instruction in the manual arts as well as the ordinary school studies, a boy who is by nature both mechanic and tradesman is usually discovered before he reaches his teens. If he also has some gift of managing his fellows he almost certainly has in him the making of a manufacturer.

The boy who aspires to become a manufacturer should have the advantages of the best trade education that can be secured, either in a special school, such as the textile schools that have been established in several cities or in one of the apprenticeship courses like that offered by a well-known locomotive manufacturing company. If he must make his start in an industry and a community where these educational facilities have not been provided, he will have to go to work after a high school education, starting wherever there is an opening and learning materials and processes as fast as he can.

**Training of
the Future
Manufacturer**

One of the possibilities, even for an apparently well-qualified lad who is ambitious to go high in manufacturing, is that he will reach a foremanship and never advance beyond that. This for some men of mechanical bent means the acme of achievement, for to be a foreman or overseer insures respect among their social equals, and wages running from ten to one hundred per cent. better than the average of the skilled workmen in their charge. For another type of man, however, the foremanship may prove to be distinctly a "blind-alley" occupation; it is often like the position of noncommissioned officer in the army—the step across to the class of commissioned officers is a very hard one to take. It would sometimes be sound advice to the talented mechanic to avoid being a foreman altogether. If he has succeeded in the first years in saving a little money let him, about the time he has risen from the ranks, quit the shop and

**To Be or Not to
Be a Foreman**

take two or three years at a technological or higher trade school. The education thus secured will put him in a position to accept a foremanship, if necessary, with the understanding that it is taken only temporarily until there comes a managerial opening for which he has been specially prepared.

The Foreman

Foremanship for the mechanical man of sturdy, independent character and moderate ambition often affords lifelong and congenial work. The foreman is a very important factor in all productive labor, though in shops where scientific management is introduced it is sometimes found that one of the stumblingblocks to high efficiency is the unwillingness of foremen, who are usually middle-aged men and rather set in their ways, to believe that the scientific expert can possibly have devised a better method of doing things. If scientific management in the future becomes more widespread, it is not unlikely that the authority of the average foreman will be considerably less than at present.

Qualifications Essential in the Foreman

An operative is chosen by the management to be a foreman for three reasons, as a rule: He has proved himself master of a certain line of mechanical processes; he has appeared to be capable of thick and thin loyalty to the concern; he has given evidences of being able to direct others at their work. A youth who has learned a mechanical trade must be qualified in these three directions if he is to rise from the ranks. To win confidence, he must be skilful and self-reliant and dependable in whatever processes he has learned; otherwise as a foreman he could never command the respect of his subordinates. A youth who appears to be timid, easily led, lacking in the solidity of personality that inspires confidence in others, will be marked as unfit to direct his companions and, no matter how skilful he may be, will not be chosen for foremanship. The foreman, in brief, in almost any form of production, must be a person with a mind of his own and a strong will impelling him to get things done.

As seen in the shop he is generally either a persuasive leader or vigorous driver of other people. The latter type is still very common, especially in the handling of unskilled and poorly paid employees; the tendency in better organized and higher grade industries is to employ the foreman who keeps his driving force in reserve and who is ordinarily kind though firm in holding his employees to their duties. Of this latter kind of foreman the "Cyclopaedia of Modern Shop Practice" says: "Toward the firm the foreman should be respectful, obedient and energetic; toward the workman he should be fair, just and sympathetic. Of all the qualities going to make an ideal foreman, that of tact is the most important. It means that the men will be treated as individuals—their failings noted and corrected, their good points enlarged upon and due credit allowed for them. With this tact, or the faculty of governing along the lines of least resistance, must be employed absolute fairness. Nothing will create such an atmosphere of discontent as that the foreman has favorites. Fairness, dignity and firmness are qualities that can be quite closely defined; but tact and its fellow attribute, executive ability, are rather elusive of close description."

**The Ideal
Foreman**

The chance of a mechanic's rising to a foremanship varies greatly in different trades. It is less, as a general thing, than it was in the old days when most manufacturing was in small shops, employing a few skilled workmen. Then the characteristic shop foreman was a middle-aged person—often the proprietor himself—in charge of two or three or half a dozen younger workers. Many of these trades have survived and in these the journeyman worker still has a good chance, say one in three or one in five, of becoming a foreman before he reaches the limit of his productive craftsmanship. In the great organized manufacturing industries, such as in mills making textiles, paper or metallic objects, the characteristic foreman has charge of a floor or department in which many

**The Chance
of Rising to Be
a Foreman**

workers are employed at machines; the chance of any one of his employees eventually getting his position is probably not one in a hundred.

Some hope for the ambitious youth who is a highly skilled mechanic, but who lacks the other qualifications of foremanship, is held out by scientific management, which is not only beginning to cut down the almost autocratic authority of the old-style foreman, but also to develop a new class of industrial instructors or coaches who direct particular operations throughout the shop. Thus if a mechanic has shown exceptional ability in perfecting the bodily motions necessary to running a certain machine so that he can get a much better than average output from the machine, he may be authorized to spend his time circulating among the workers and teaching them the better way. He is not in any sense a foreman but rather an instructor whose orders, in some establishments, are allowed to take precedence over those of any and all foremen, within, of course, the limits of his particular line of work. This means a breaking down of the old-fashioned factory's military organization, under which each group of operators is commanded by a foreman, he by the mill manager, over whom is the general manager, and so on.

The great number of men and women who can, when properly trained, become skilled workers in the mechanic arts belong to what has been called the aristocracy of manual work. It must not be inferred that the young man and still more the young woman who has acquired mechanical skill but not advanced to a position of directing others, is in any way to be regarded as having failed to achieve an honorable place in life. The large rewards of society, of course, are bestowed as a rule either on those who have developed powers of leadership or on those whose individual skill in some special line is out of the ordinary. The former class, from early times, have had first consideration. Not many centuries ago even expert

**The New Class
of Industrial
Instructors**

**The Status of
the Skilled
Mechanical
Worker**

physicians, lawyers and engineers were held inferiors to military or political personages. These professional experts, however, have gradually won their claim to the right to a good standard of living, with suitable compensation and due respect from their fellows.

Mechanics, those especially who perform operations that cannot be learned easily by anybody and that are often impossible except for the specially gifted, are gradually forcing their way to a position from which they command much better pay and treatment than was until recently accorded to any class of wage earners. This struggle of a class of workers to take at least equal rank in point of financial and social standing with the people who sell commodities and with the professional classes is by no means won at this writing. It is the explanation of almost countless disputes between capitalists and employers on the one side and organized bodies of workers on the other. People who have become exceptionally skilled in the making and running of machinery have awakened to a belief that society, which finds their services indispensable, ought to reward them not less liberally than it now rewards other experts. The employer meantime does not always see just how he can get the public to pay enough more for his product to justify larger wages to even his best employees. Hence arises the frequent friction between the two interests which every boy and girl with mechanical gifts ought to know about before deciding upon an occupation in this line. Many mechanics pass through their whole working lives continuously employed and promoted from time to time as their services become worth more to the employer. Others, however peaceable they may be as individuals, find themselves constantly drawn into the struggle that now and then becomes acute between organized labor and organized capital.

**The Rewards
of Expert
Mechanics**

Labor Troubles

Though bearing in mind this possibility of the skilled mechanic's being at times on the industrial firing line,

**Qualifications
Essential
in the
Mechanical
Worker**

let us still urge that for many boys and some girls nothing is more desirable than a thorough training in one of the mechanic arts. A great many people are what the psychologists call "muscle-minded." Their greatest natural enjoyment is in doing things which require more than ordinary deftness or control of the muscular actions and reactions. Their interest, on the other hand, in purely intellectual matters may be very slight. They think with their fingers. This kind of talent is very important indeed in the processes of transforming a raw material into a finished product. It represents the kind of gift which in many industries may enable the young mechanic to emerge from the class of ten-dollar-a-week workers into the rank of those who command \$5 or more a day. If a boy has always had a knack and enthusiasm for the use of tools and machines together with a sort of sleight of hand in dealing with substances used in manufacture, his education ought almost certainly to be directed along mechanical lines. If he has marked intellectual ability as well and is almost as good in mathematics and languages as in manual training, he ought, if the family's circumstances permit, to be trained at a technological school as an engineer.

**Compensation
of Skilled
Mechanics**

If, however, he is exceptional in hand work rather than in mind work it is probable that he will best fit himself to be one of the better paid among the ten million men and women employed in American manufacture. These workers in most industries have a situation that is improving. Their wages are higher than average salaries in many commercial pursuits and at least on a par with many professional incomes. The linotype operators in a newspaper office are often better paid and work shorter and more regular hours than the news writers of the editorial department. The woodworkers and plasterers in a rising office building receive a better day's wage than many of the salaried draughtsmen of the architect's office in which the structure was designed. The mechanic

while at work wears less expensive clothes than the salaried worker. He often has more time, if he chooses, to cultivate a garden or chicken run or otherwise add to his income. If he is highly skilled he suffers less from competition than most breadwinners; he is the last man to be released in a period of depression and the first to be re-employed when times improve.

To guard, however, against painting too roseate a picture of the mechanic's career, let us add that in three respects he is still not so fortunate as professional or commercial workers. One is the liability to unemployment just referred to. It may be caused by seasonal slackness or exceptional business depression or by labor disputes. In any case workshops and factories, as a class, have a habit of shutting down during such periods, whereas stores, banks, business offices, educational institutions and governmental departments have the habit of continuing to run.

Handicaps
of the Skilled
Mechanic

A second objection to employment as a mechanic is the liability to accidents and occupational diseases which is much greater for the mechanic than for other workers of the same compensation and intelligence. This situation is not so bad in most trades as it once was, because legislation and enlightened employers are rapidly introducing protective devices and sanitary provisions. In many States wage earners are partially protected in a financial sense by workmen's compensation laws under which, if an employee is injured through no fault of his own, he receives compensation for a certain period. The fact remains, nevertheless, that the average mechanic is exposed to more dangers from machinery and materials than is the average employee of a commercial establishment or the occupant of a professional office. The man who swinging in mid-air bolts together the beams of a rising skyscraper runs more risks than the bank clerk who will later occupy a comfortable desk in a room made possible by the daring of the erector. The miner, apply-

Danger of
Accident and
Disease

ing a high-powered drill to seams of copper-bearing rock a mile below the earth's surface, is frequently as intelligent, expert and highly paid a man in his line as is the doctor or dentist in the town above him; but for all his cunning and caution he is much more likely to be injured, perhaps through no negligence of his own.

A third handicap which the mechanic shares with most wage earners is that of earlier retirement from industrial usefulness than comes to average business and professional people. He may earn considerably more money than a bookkeeper during his productive years, but the chances are greater that at fifty he will be an old, worn-out man, unable to hold the pace with the young fellows who are bringing fresh vigor into their tasks. This is a very real liability, one which a foreseeing mechanic provides against by saving regularly and perhaps buying a little place where by farming on a small scale he can add to his income after he has ceased to be industrially useful. With family ties, however, it is not always easy to save, and the \$30 or \$40 a week that represent the breadwinner's highest earning capacity are all spent going along. The life insurance companies are obliged in writing the factory worker's policy to charge at considerably higher rates than in other ordinary policies because the workingman's expectation of life is considerably less than average. The speed is such in modern factories and workshops that highly skilled workers share with the others the excessive strain of their occupation and only too often have a comparatively brief working life. A compensating feature is that the best men, because they are the wisest in saving their strength, show the wear and tear less than the others, and because they are better paid, are able to be better fed, housed and otherwise fortified for their work.

Wearing Out
Early

Factory
Worker's Chief
Handicap

There are in reality many grades and degrees of natural mechanical skill, varying from a certain deftness of the fingers to a profound and sympathetic understand-

ing of machinery. Under ideal conditions every young person who has seemed to have the makings of a good mechanic, would be carefully studied and directed into the line for which he has greatest aptitude. Even in a single shop it often happens that a person who falls admirably into the rhythm of one type of machines is of very little use in other processes of production. However, it is generally only possible to determine that a young person has mechanical taste and ability and to advise study in some trade school of the neighborhood.

**Directing
Natural
Mechanical
Skill**

The range of choice in study for one who is willing and anxious to prepare himself properly may be extensive or limited according to the community where he lives. In a large city of varied industries special educational advantages will abound. In Boston which has gained a well-merited reputation for trade education as well as for other forms of education, a boy's native bent for mechanics should be discovered in the manual training work of the public schools. Such a lad is naturally and wisely sent to the Mechanic Arts High School, where he gets a good secondary education with emphasis on the mechanical studies. Then either as a day student or while employed by day and continuing his education evenings, he can enter any one of several institutions offering special trade education: the Wentworth Institute, founded by the late Arioeh Wentworth for giving advanced instruction in the mechanical trades; the Franklin Institute, for which a sum of money was left by Benjamin Franklin to accumulate for a century and then to be used for the better education of Boston mechanics; a continuation school of the shoe and leather trades, a school of steam engineering, one of the printing trade schools or any of several other special schools. Of the educational advantages of several other metropolitan communities a similar story can be told. In such cities a boy whose mechanical aptitude has been discovered has every chance of learning an appropriate trade

**Educational
Advantages of
the Young
Mechanic**

under expert guidance. The range of opportunities is much narrower in towns which have but a single industry or a single line of allied industries. There a youth may have a perfect chance to learn the operations and processes connected with a textile or metallurgical trade, for instance, but it does not always follow that his particular kind of skill will find its best market in either of these industries.

Although women are found in great numbers in manufacturing, the opportunities for women artisans are limited except in a few trades. Many women are deft and sensitive with their fingers. This puts them at an advantage in occupations in which delicate operations are performed by machinery, as in the whole range of needle trades, the garment and millinery trades and many others making a highly finished product. In general, nevertheless, mechanical work, if of a high grade, demands both physical strength and a native interest in machinery which women lack. In several of the largest industries their place, when they are employed at all, is to supervise the running of machines which ordinarily work almost automatically. The more difficult and intricate work of preparing and maintaining the machines themselves and of preparing and supplying the material that is fed to the machines is performed by men. As trade educational facilities for women are multiplied, however, it will probably be found that there are more highly skilled occupations which they can fill than had previously been believed.

Failing regular training in a trade school, it is an advantage if the prospective artisan can secure a chance in an industry which takes some pains with the education of its younger workers. Practically all mechanics of the old days served apprenticeships, learning from the master of a shop all he had to teach. In some of the European nations this custom still prevails. In this country for various reasons it almost completely lapsed in the

Women as
Mechanical
Workers

Women's
Work Less
Difficult and
Intricate



AN UP-TO-DATE LACE FACTORY.

nineteenth century and nothing at first was substituted. Of late years there has been something of a revival of the apprenticeship system, though it has not been successful in all industries. For the failures O. M. Becker, writing in the "Engineering Magazine," gives these reasons: eagerness of foremen to get quick results from the boys' work; lack of definite understanding as to what should be expected of the apprentices; failure to develop definite and regular instruction such as would be given in a school. Where apprenticeships of this defective character are established it is found that only a very small percentage of the boys entering ever qualify as master craftsmen. It is advisable, therefore, for a boy who is considering apprenticing himself to a manufacturing industry to find out whether the scheme is merely one designed to secure valuable work for very small wages or whether it definitely offers a trade education that will very surely render the apprentice of to-day a master workman of to-morrow.

Apprentice-
ship in
America

A characteristic apprenticeship of the successful and valuable sort is that established by the Baldwin Locomotive Works of Philadelphia. This very large concern takes boys of seventeen years and upwards who have had a common school education and have shown personal interest in mechanical work. They agree to serve the company for four years during which time they must take special evening studies for at least three years. Those who complete the term of apprenticeship receive a bonus of \$125. Another, and more advanced class of apprentices, is composed of graduates of high schools, who take rather a stiffer evening course and who receive a bonus of \$225 at the end of their apprenticeship. Still a third class is composed of graduates of colleges and schools of technology who serve for two years without bonus. It hardly need be said that "graduates" of the Baldwin Locomotive Works are in great demand in many industries. If a young man of mechanical ability

A. Very Suc-
cessful Appren-
ticeship System

can secure admission as apprentice to an establishment of this class the opportunity is worth making sacrifices for.

MACHINE SHOPS AND THE MACHINIST

Machinery is at the basis of practically all modern manufacturing and, before considering conditions in some of the typical trades, we ought to look briefly into the requirements and opportunities of the machine shop. For many boys the machine shop offers more nearly ideal training than any other productive industry could extend. It gives a practical grasp on the principles of mechanism and the performance of exact, thorough mechanical work that can be applied in a thousand different directions. The particular shop in which a man is trained may make one or many kinds of machinery: for cotton and wool manufacture, for locomotive building or repair, for making the steel work of sea-going vessels or the parts of the automobile, for shoe manufacture, ice making, or for almost countless other purposes. In practically every machine shop an intelligent, gifted young man can make himself master of one of the most important of productive vocations.

Nearly Ideal
Training

It should be noted that, in a general way, the machinist's work covers three separate lines of occupation: manufacture, installation and repair of machines. The all-round machinist is familiar with tool-making as well as machine-making. It is indeed his practical ability to fashion out of the very hard steels of to-day tools of wonderful cutting power that has made possible some of the greatest achievements of present day industry. Most apprentices in a machine shop also become well acquainted with the science of pattern and model making.

Tool-making

A boy who seems to be suited to learning the machinist's trade should, according to a number of expert opinions, begin early to acquire the processes and motions. The muscular action of a man of twenty-five is less plastic than of a boy who has hardly attained his full growth.

The ages from fifteen to eighteen are, therefore, best in which to acquire the simple but very necessary processes on which all machine shop work is based. If the elements of the trade are not learned at a trade school it is better to enter a shop which has a definite apprenticeship system. Many machine shops have this, though it is by no means universal. A frequent term of service is four years following a probationary period of two or three months. In many shops it will be necessary to wait for vacancies since the union rules allow for only one apprentice for each five machinists. The young machine shop apprentice has a variety of tasks. He runs on errands and fetches tools to the machinist. Presently he is allowed to try his hand at a little drilling, milling, lathe-work, planing or shaping. He is kept at these elementary operations until they become second nature to him and his accuracy can be tested to the thousandth of an inch.

**Training
of the Young
Machinist**

It has been said that not ten per cent of the boys who enter American machine shops ever become trained machinists. This may be an exaggeration, but it is undoubtedly true that the work is severe and exacting and that many would-be machinists lack the perseverance to master the various studies that are required in connection with the daily shop tasks: such subjects as algebra, plane geometry, physics, elementary mechanics, machine design, mechanical drawing, jig and fixture designing. A boy who has been dull in mathematics in the elementary school is perhaps particularly liable to become discouraged as he discovers that the machinist should be proficient in mathematics.

**Proficiency
in Mathe-
matics**

The pay is small at first—perhaps not more than \$3 a week. It will be increased at the rate of \$1 a week until the apprentice has become a journeyman. As a general machinist he will then command from \$12 to \$15. Larger pay depends on his becoming expert in some special line. Highly skilled tool, jig and die makers receive about \$4.50 a day; repairers of the same grade, \$4. Above them

**Wages of the
Machinist**

are the foreman, who earns from \$20 to \$30 a week, and the shop superintendent, whose salary may range from \$1,200 to \$5,000 a year. There are some periods of unemployment, of course, though the expert machinist is not particularly dependent for employment on any one job or any one machine shop. The yearly earnings of an average machinist who is not a specialist may be estimated at from \$600 to \$750.

The machinist's trade is a good one for an energetic, aggressive man because it is constantly expanding and because it allows rather an unusual number of men to rise from the bench to individual proprietorship. While there are some very great machine-making firms, the tendency is to multiply comparatively small shops, doing a manufacturing or repair business. The automobile trade, for example, has made work for many repair and emergency machine shops. Almost numberless metallic specialties are manufactured in small workshops, which are able also to specialize on patented articles.

PRELIMINARY STUDY OF PRODUCTIVE INDUSTRIES**The Vast Field
of American
Manufacturing**

Surveying the vast field of American manufacturing, the young person who is free to choose and willing to go to any part of the country will be almost overwhelmed by the magnitude of his choice. Almost every conceivable art devoted to transforming raw materials is practiced somewhere in this land of ours: the oldest and most primitive processes surviving in out-of-the-way places; entirely new types springing up almost overnight in the train of new inventions or new demands from the public. Men are still employed in the north woods fashioning birch canoes according to the methods used by redmen ages before a white settler had appeared on this continent. At the other extreme, a thousand woodworkers and riveters may be seen assembling the parts of a dreadnaught battleship equipped with the most minute and exact mechanical devices of navigation and warfare.

Among the cacti of the southwest desert Indian women weave the popular Navajo blankets just as did their grandmothers centuries ago. In New Bedford a young girl watches the operation of a power-driven loom whose shuttle carries a thread finer than the average cobweb and whose product is more delicate than the most famous of oriental gossamers. All the desires that people have long had for food, clothing and shelter are now supplied by both simple and complex mechanical devices, and human ingenuity is all the time exerted to invent products that will arouse new desires.

In considering different forms of manufacturing it becomes evident that some have a more assured future than others. Human tastes change continually. Supplies of raw materials become exhausted and new sources of different supply have to be developed to serve the same general end. Inventions overthrow older processes and mechanisms. Whole lines of manufacturing activity fall into the hands of interests that operate them for present profit rather than for future welfare. Some industries pay the rank and file of their employees so badly that it is easy to foresee long and serious troubles before the principle is established that the workers ought to be at least as well taken care of as the machinery. There is every good reason why a young person, whose whole life may be passed in the production of a single manufacture, should make the most careful preliminary study possible of the industries in which he, or she, may find work. Take a specific instance. A modern brewery employs a considerable number of high-waged people. Yet when one studies the statistics of the growth of the movement which has made State after State "dry" and which in many States actually enforces Prohibition, and when one considers the hostile attitude of scientific men even toward the most moderate drinking, and the growing disfavor of many classes in society toward ancient customs of vinous indulgence, then it is likely to appear danger-

Considering
the Future of
the Business

As States Go
Dry

ous to urge that the young man who combines mechanical and scientific tastes, seek work with a brewer or distiller. He might better apply his talent to a business that has a future.

Since most boys and girls who enter the manufacturing industries must go to work early, it would be educational for members of a graduating class to make a little study of the productive industries of the neighborhood to determine which offer the best chances. Here are some of the factors that should be looked into:

Location. First the general character of the location with reference to the rest of the United States. A manufactory, other things being equal, is best situated if it has easy access to a large number of the people who will buy its product. If the factory makes an article of wide and popular usefulness draw circles with radii of one hundred, five hundred and a thousand miles around its location on the map. How many people are within these circles? How would this location compare in this respect with other locations of the United States where similar manufacturing is done?

Power. The future of a manufactory in a given locality may be determined by the power which is available. The first American factories depended almost entirely on water power, utilized directly by applying wheels to falling water. Then came a time when coal was so cheap, especially in regions comparatively near the mines, that manufacturing was no longer dependent on being close to a waterfall. Lately water power has begun to come back into favor. It no longer has to be utilized on the spot where the water falls, because it can there be used to run a generator of electric current which may be sent out over high tension wires to operate factories ten, fifty or even a hundred miles away. This hydro-electric power, as it is called, is very cheap and very convenient. It will never be exhausted as the power stored up in coal is being consumed through the exhaustion of the coal

beds. Hence manufacturing in a region that has water power will probably be more permanent than in a country where coal is the only supply of power in sight.

Access to raw materials. Is the industry close to its supply of raw materials, or can it get them very cheaply, as in the form of water-borne freight? In some kinds of manufacturing this is a more important consideration than in others. Where success depends on making articles valuable by putting much skill into their production, the cost of the materials may be almost negligible. Watch springs, for example, may be made a thousand miles from an iron mine just as advantageously as next door. When, however, there is not much difference between the selling price of the raw material and of the finished product, a manufactory that is near the source of supply of raw materials can usually undersell all others.

Affecting the
Price of the
Finished
Product

Labor supply. If a manufactory has difficulty in securing help whenever times are good, it may be in such a location that it cannot grow normally. When business is depressed, of course, almost any employer who offers work, finds no difficulty in securing workers. The test comes in periods when farmers and manufacturers and other employers compete among themselves for the assistance of strong and capable people. This is one reason why, in spite of many higher costs of doing business, a manufacturing enterprise is often more prosperous in or near a large city—because the supply of labor is surer. In a smaller place a factory employing a great number of women has better probabilities if in the same neighborhood there is also a growing industry employing mostly men. The latter are sure to have families and their daughters will work in the factory.

Advantages
of Locating
Near a City

Demand for the product. Study the growth or decrease of output not only of the factory in question but of the industry as a whole. Most public libraries have the reports of the United States census which give these figures of manufacturing industries; the librarian will

usually give valuable help in finding the statistics if necessary. Industries the value of whose product grows faster than the average growth of the population are, as a rule, the best to be connected with.

Wages. While gathering figures of production, look also at the wages paid in the industry under examination and compare them with wages in other lines. No matter how good a worker may be, his earnings will be largely conditioned by the customary wages of his industry. These are not necessarily determined by what the workers at present are worth, but often by what has always been paid. It is good business for the young worker to get into a type of manufacturing in which the employers have become accustomed to pay reasonably high wages. Those industries in which there is a steady advance in the average wages paid are, naturally, the ones for the wage earner to consider.

Physical conditions. Manufacturing industries tend more and more to come under public regulation as regards the conditions under which workers toil. Every wage earner has the right of a human being to hope that his work will not unnecessarily shorten his days on earth, and for that reason it is right to exercise care in entering occupations that have the reputation of being unusually dangerous or exhausting. There are great differences, naturally, among manufactures in their effects on the health of employees. In some establishments work of a rough, hard nature abounds, and while the hours may be made reasonable and the special dangers minimized, the occupation will always remain suitable only for strong, hardy workers. In other manufactures the prevailing type of employment is of a delicate, concentrated sort, producing strain on the eyesight or nerves but not otherwise exhausting. The nature of these processes throughout the industry should be considered and not merely in some special factory where exceptionally good or bad conditions may prevail. At the same time, before

The Customary
Wages of an
Industry

Conserving
Health and
Life of
Workers

going to work in a particular establishment, observe the mode of ventilation, means of removing dust, safety devices over dangerous machines, provisions for sanitation and lunching facilities. An employer who does not provide the necessities of civilized existence does not deserve to obtain the assistance of intelligent and ambitious young workers. Bad physical conditions in an industrial establishment, furthermore, are very likely to be an index of its unfortunate financial condition.

Character of management. In surveying the outlook for an employee in any particular manufacturing establishment, it is advisable to pay some attention to the character and reputation of the person who is known to be "it" in the management. Usually there is such an individual, one dominating mind or personality, to whom both stockholders and employees defer. All studies of efficiency in industry prove the importance of this chief executive. His virtues and failings are alike reflected throughout the organization, partly because such a leader tends to choose lieutenants who are like himself and partly because practically all his followers are inclined to imitate him. An aspiring youth should try to enroll himself under an industrial general whose ability is unquestioned, whose personal habits are beyond reproach. Nothing can be more unfortunate than to serve under an inefficient and shifty leader. These positions of trust and responsibility are rarely filled, luckily for the mass of employees, by absolutely incompetent men. Many of them are held by managers whose ability is considerable, but whose infirmities and limitations are equally so. These are the "bosses" to avoid if the young person can possibly get a chance to serve from the first under a chief of big and inspiring personality.

The Dominating Personality

CHAPTER XVI

TYPICAL MANUFACTURES OF THE UNITED STATES

THERE were found to be in the United States when the 1910 census was taken some 264 principal manufactures, giving employment to 7,707,751 persons whose total yearly earnings amounted to \$4,375,634,216. This last sum, huge as it is in the aggregate, gives when divided by the number of workers a figure which shows that many of these must have very little to live on. The average for all employees, including corporation officials with salaries from \$10,000 to \$100,000, as well as women and children who sometimes receive very meagre pay, figures out at \$567 a year, or a little less than \$11 a week. This average, of course, is kept low by the participation in manufacturing work of large numbers of low-skilled persons who receive less than \$10 a week. One of the great problems of the individual who enters any branch of manufacturing, is how by exercise of skill and intelligence to get well above the average in earning capacity.

Wages like salaries vary considerably in accordance with local conditions. They are highest, as a rule, in the largest cities where the cost of living is also greatest. Fifteen dollars a week in a small town may have larger purchasing power than \$20 a week in New York or Chicago. As a general rule, the further west one goes the higher the wages, due in part to scarcity of help and in part to higher cost of living. The very low wages paid to low-skilled women in many occupations will be unlikely to appear in schedules of a few years hence, for many States are now adopting minimum wage laws the tendency of which is to fix a minimum of \$8 or \$9 to workers

Low Average
Wage in Manu-
facturing

Minimum
Wage Laws
for Women

who have passed their apprenticeship. It will be profitable to take a brief survey of the typical manufactures of the United States with a view to pointing out the outlook in each for mechanical workers.

IRON AND STEEL

Civilization as we know it would be quite impossible without iron and its many products. The iron and steel trade is the basic manufacture in this country. When the steel mills are busy times are good. When they are closed or are running only on part time the whole nation is more or less depressed. The condition of this great business is one of the most accurate barometers of business. It is even more important as an index of prosperity than the condition of the crops, for often when the crops are comparatively small the prices which the farmers receive for them are so large as to make good times throughout the agricultural regions. Nothing, however, is so indicative of a widespread depression as many shut-downs among the 17,289 establishments which are devoted to manufactures of iron and steel and which employ 1,025,044 people with wages of \$633,602,871 and with an annual product valued at \$3,163,126,293.

The Barometer
of Business

What a multitude of industries are included in these big figures need hardly be said. They are all dependent on supplies of iron, most of it received from American mines in the form of one of four principal ores: hematite, limonite, magnetite and pyrite. A little iron is imported for special purposes, as for example the bog iron of Sweden, fitted by its granular structure for certain kinds of wrought iron work. The greatest sources of supply in this country are around the western end of Lake Superior and in eastern Tennessee and northern Alabama. From the Lake Superior mines the ores are transported down the Great Lakes in an endless procession of ore carriers to the vast mills of Gary at the south end of Lake Michigan or the earlier developed iron centres of Ohio

Sources of
Supply of Iron

and western Pennsylvania. The great essential in the production of iron and steel from the ores is, of course, an abundant supply of cheap coal. In the southern "black country" the two basic elements are found close together.

In the mills of Pittsburgh, Cleveland, Gary, Birmingham and other centres of the iron trade the ores are reduced to pigs of iron suitable for casting or for wrought iron. By addition of small quantities of carbon and manganese and in some cases of other elements various grades of steel are made—an alloy that is much harder and stronger than simple iron. This branch of metallurgy is one of the most complex and fascinating in human industry, with its constant quest of chemists for the right formulae for "scouring" the molten mass, its rush and hurry of production in busy times, and its wonderful organization of business departments that deal with the whole civilized world. A very large share of the primary production of iron and steel is in the hands of a single huge company, the United States Steel Corporation which was formed by the late J. Pierpont Morgan from a combination of several independent concerns. There are, however, many independent steel makers.

After iron or steel has been produced in the form of pigs or ingots it goes to various destinations. The four most important secondary manufactures are those of bridgework, rails, sheet metal (including tin plate), and wire. Each of these is a vast business in and for itself.

Bridgework means much more than the making of beams and girders for steel bridges. This form of construction is applied to the framework of nearly all modern buildings of any considerable size. Without the bolting together of steel beams the skyscraper could not be erected. Subway and elevated construction for electric railways involves very large use, too, of the convenient and strong bridgework.

Steel rails are made in American rolling mills not only

The Most
Fascinating
Branch of
Metallurgy

The Four Most
Important Iron
and Steel
Manufactures

for use in laying railroad and railway tracks in this country but for export to many other nations. Railway building is incessant in every part of the world. On established lines of tracks, especially where the very heavy engines of to-day are used, rails wear out very rapidly and must frequently be renewed.

Sheet iron and steel are rolled at big establishments in Pennsylvania, Indiana and other States. The uses of sheets of metal of various thicknesses are almost innumerable. Very thin sheet iron is frequently plated with tin after a method devised in England about 1720. The tin, of course, prevents rusting. Some of the thickest, heaviest plate is used for battleships and fortifications.

**Manufacture
of Sheet Iron**

At other establishments masses of superheated iron and steel are drawn into wire or tubing. This enormous business is at the basis of manufacture of nails, needles, fencing wire, much telephone and telegraph wire (though a hard drawn copper wire is preferred in the former industry) and numerous small manufactures.

Space lacks for even naming the lesser industries built upon iron and steel as a basic material. Wrought iron workers, some of them veritable artists, still make ornamental gates, fences, locks and window accessories that compare favorably with the finest ironwork of the older European countries. Foundries, widely scattered everywhere, take pig iron or junk and pour it molten into shapes of a thousand and one articles of daily use. Tool-making engages some of the best talent in the trade. Except in the case of the cheaper instruments, this industry demands special and costly steels which are of a hardness and cutting power unknown to any tools of any preceding age. Hardware and cutlery of the best grades are now made in America. The electrical industries draw heavily on the steel and iron trades for magnets, armatures and other apparatus. The story of iron and steel, as it is traced for many children in Pennsylvania

**Minor Iron
and Steel
Industries**

schools through the exhibits and charts of the Philadelphia Commercial Museum, is one of the most interesting and instructive, as all young people are only too likely to accept as a matter of course the many articles with whose use they are familiar.

Wages in the primary and secondary iron and steel trades are high, but the work is very laborious for most of the workers. The plants lay off many men in hard times. Characteristic of the average daily wages of the better paid men in the steel mills are the following: catchers, \$3.29; draughtsmen, \$3.21; heaters, \$5.43; heaters' helpers, \$3.08; open hearth hands, \$3.12; puddlers, \$6.99; rollers, \$9.13; rollers' helpers, \$4.65; roll hands, \$3.23; roll turners, \$3.61; roughers, \$3.38; screw hands, \$6.75; table men, \$4.00; tin men, \$3.02; tongs men, \$4.50. Very many of the workers are foreigners, not a few of whom came from similar employment abroad. A young American intending to learn the iron and steel business does well to secure special training, as in the courses of the Carnegie Technical Institution, Pittsburgh. His opportunities for advancement will be much greater.

In the almost innumerable manufactures which use iron and steel as a basic material there are all sorts and conditions of employment for men and for a limited number of women. These trades in general have room for a great number of highly skilled, high-waged people and most of them have an assured future. Before a young person enters any particular trade under this head he should, of course, make as careful a study as possible of the general situation in the trade and of the management with which he may cast in his lot. These businesses, as a rule, have been more progressive than some others in introducing scientific management, in providing opportunities for beginners and apprentices to become skilled workmen, and in encouraging competent workers to advance in skill, through fairer systems of wages than those paid at a fixed rate to all classes of employees.

A Schedule of
Wages in the
Iron and Steel
Trades

Manufactures
of Iron and
Steel Under
Scientific
Management

METALS OTHER THAN IRON AND STEEL

Several other metals besides iron have a very large place in modern industry: copper which is indispensable to the electrical trades and useful, either in its pure form or alloyed as brass, to many others; gold and silver which are refined for employment in coinage and decorative work; lead, which in sheets, pipes and bars is sold for manifold manufacturing purposes; zinc, a constituent of brass and an element in other products; platinum from which are fashioned filaments for electric lights and delicate wire for the telephone receiver; mercury, tin, manganese and other metallic elements. In the preparation of these metals and the manufacture from them of such articles as clocks and watches, gas and electric fixtures, gold and silver foil, jewelry, silverware and plated ware, pins and other small goods, we find that no fewer than 8,750 establishments give work to 248,785 people whose product is worth \$1,238,251,401.

Skilled Work
in Various
Metals

What has been said about the iron and steel industries is largely true of these, but average wages for the group are a little lower than in the steel trades. This is because fewer highly skilled people must be employed in the primary processes and because many of the small manufactures which use the precious metals or brass have highly developed machinery which can be supervised by workers of slight technical training. These are the average daily wages paid in the brass and copper trade of a Western city: apprentices, \$1.22; assemblers, \$1.69; blacksmiths, \$3.00; buffers, \$1.94; casting cleaners, \$1.51; casting filers, \$1.60; coppersmiths, \$3.42; core makers, \$1.73; die makers, \$3.60; draughtsmen, \$2.08. The jewelry trades are of considerable importance in several Eastern centres. Average daily wages in this industry in New York City in 1912 were \$2.78.

Remuneration
in Metal
Industries

The great war which broke out in Europe in 1914, caused a temporary advance of ten per cent in wages in most metal industries, owing to the demand for munitions.

STONE, CLAY AND GLASS PRODUCTS

The crust of the earth, composed of several chemical elements mixed and often fused by intense heat or compacted by pressure, affords materials which man is able to adapt to his uses. The principal manufactures from minerals are summarized under the above heading. They include the many industries using stone as a material—among them artificial stone, cement, grindstones and whetstones, lime, marbles, cut stonework and wall plastering; industries employing clay, such as manufactures of brick and tile, crucibles, kaolin and ground earths, pottery and porcelain, terra cotta and fireproofing; glass-making and manufactures using glass as material. All these trades give an aggregate of 16,168 establishments, 342,827 wage earners, \$189,256,482 in wages and a product worth \$531,736,831.

The average wage in these occupations is not very high—only about \$11 a week for the whole country. Yet the glass works and potteries employ many highly skilled, high-waged people. At the other extreme are the brick-yards and cement works where a large proportion of low-waged workers are employed. These, of course, bring down the average wage in this group of industries.

This is "the age of Portland cement," so that as a business cement manufacture is a good one for a young man of scientific or mechanical tastes. Terra cotta is used extensively in architectural ornament and for fireproofing. The brick trade is less distinctly progressive and offers comparatively little inducement to ambition. Glass-making is a very important industry which has steadily moved westward to keep near the sources of cheap fuel. Its employees up to this time have been of the aristocracy of labor; though there is now a tendency to install machines which can be operated by low-waged help. Wages of \$40 or \$50 a week are not uncommon in the glass industry, but the conditions of entrance are generally rigid. Our potteries at Trenton, East Liver-

Materials on
the Earth's
Surface

Cement,
Brick and
Glass

pool and elsewhere compete with increasing success with the best potteries abroad.

LEATHER AND ITS FINISHED PRODUCTS

The old saying that "there's nothing like leather" is still appreciated to such an extent that an active demand exists for the hide of every beef creature, sheep or pig that comes on the market. In tanning establishments equipped with the proper chemicals and with appropriate apparatus, leathers of various grades are manufactured to serve as material for factories where boots and shoes, belting, trunks, bags, suitcases, pocket books and many other articles are fashioned. At somewhat more than 5,000 separate plants 309,766 leather workers earn \$155,110,878 while shaping a product that is worth \$992,-713,322.

**Ever-active
Demand for
Leather**

The leather trades are confronted with a growing scarcity of hides on account of the decrease in the number of cattle raised in several countries. This is partly compensated for in the shoe-manufacturing industry by an increasing public demand for shoes that are not all leather, as for instance the footwear with canvas "uppers" and the rubber-soled shoes now so generally worn in summer. Other leather manufactures are helped out to a considerable extent through imitation leather, a composition of various substances dissolved in alcohol and applied to a backing of stout cotton cloth. In a large way, therefore, the leather trades are likely to continue among the most progressive of American industries, even though one may listen to tales of woe in the old-fashioned tanyard. More and more people throughout the world are wearing shoes and gloves, and because of the superior quality of the American product our exportations in this field will probably increase rapidly.

**Superior
Quality of
American
Leather
Product**

Opportunities for independent proprietorship are many in the leather trades. The making of shoes, gloves and other leather goods is in the hands of comparatively

Opportunities
for Independent
Proprietorship

small manufacturers. In the shoe business particularly it is claimed in behalf of the United Company's system of leasing machines instead of selling them outright that a man who knows the trade can with very small capital start a factory of his own and often make a very great success of it. The shoe towns of New England, such as Lynn, Brockton and Haverhill, and of the Middle West, such as St. Louis, have witnessed the rise from the bench of many able, energetic manufacturers. In Gloversville, too, where a large proportion of American gloves are made, most of the manufacturers are men who started at the cutting table.

Schedule of
Wages in Shoe
Factories

Work in the leather trades is, in general, of a fairly good grade with considerable chances of advancement for competent workers. The comparatively low wage that is shown for the industry—about \$11 a week—is due in part to the employment of many unskilled laborers in the tanneries and in part to the location of many shoe factories in rural districts where the low cost of living justifies a lower wage. The following are characteristic wages in Massachusetts where the workers are rather better paid than in northern New England: bottom finishers, \$9.00-21.60; cutters, \$15.60-21.60; cutters' apprentices, \$13.50-18.00; dressers, \$10.50; finishers, \$9.00-16.50; ironers, \$9.00-18.33 $\frac{1}{3}$; lasters, \$13.50; levelers, \$21.60; markers and heelers, \$15.00; packers, \$9.00-16.26; pasters, \$6.00; repairers, \$10.00-15.00; shavers, \$21.00; skivers, \$13.50-16.50; sluggers, \$25.20; sole sorters, \$15.00; sorters, \$19.50; stitchers, \$10.50-14.00; tackers, \$8.50-9.00; treers, \$13.50-18.33 $\frac{1}{3}$.

A characteristic shoe factory is conducted at high speed, so that the work, though carried on in favorable surroundings, is hard on the nerves of many of the workers. Women are employed on many of the lighter machines; they must be agile and capable of considerable endurance to keep the pace. The margin of profits on a single pair of shoes is so small—often not more than

three or four cents—that the manufacturer must surround himself with capable, hustling people. Some of the machines used in the shoe factory render the worker liable to serious and painful accidents; others are quite safe to operate. The trade is somewhat subject to lay-offs when orders are light. Shoe workers are very generally unionized.

Trade classes for shoe workers are beginning to be established. Of such sort is the Shoe and Leather Continuation School started in 1910 as part of the public school system of the city of Boston. In this course instruction is given by employers and experts as well as by a special teacher. The course includes study of the operations of nearby factories. These are the special topics studied: production and distribution of leather; tanning processes; leather manufacture; recognition of kinds, grades and comparative values of leather; manufacture and classification of shoes and shoe findings; shoe salesmanship; efficiency training.

Trade Classes
for Shoe
Workers

Glove-making, as we have indicated, is centralized at one town in New York State. The trade employs men as cutters and for heavy work; a majority of the other employees are women at fairly good wages. Only a small percentage of those who enter the glove shops prove to have both the required manual skill and the necessary power of sustained effort. A similar statement might be made about workers in the other branches of the leather industry. Harness-makers, for example, frequently complain of the difficulty of securing helpers who are deft and dexterous and at the same time strong enough to work all day over tough leather.

Glove-
making

CHEMICALS AND ALLIED PRODUCTS

The outbreak of the great European war in the summer of 1914 called attention to the backwardness of the United States in the chemical industries. It was speedily proved after the cessation of imports of dyestuffs and

other chemical products that only with considerable difficulty could we get along without Germany. Other nations, of course, were in the same predicament. Germany in forty years preceding the war had built up the largest chemical works in the world, equipped with marvelous instruments of precision and protected by international patents. This dependence of all civilized countries upon a single nation for important lines of chemicals will perhaps never again occur. It is certainly unlikely to occur in the United States which already has a good-sized chemical industry on which to build, an industry consisting at the last census of 11,745 separate plants, employing 237,988 persons at wages of \$113,548,929 and sending forth a product worth \$1,430,901,954. From so big a total it might have been supposed that we were already doing our part in chemical manufacture. Yet chemicals enter into the list of materials of so many industries that our importations in this line have been very extensive.

The principal chemical manufactures in this country are of preparations for bleaching, cleaning and polishing, dyestuffs and extracts, explosives, fertilizers, gas, greases, inks and writing fluids, cotton seed and linseed oil, paints and varnishes, patent medicines, salts, soaps, acids, turpentine and rosin. Most of these industries are susceptible of further enormous development in this country. The trade in dyestuffs and bleaches was especially dependent on Germany before the war, for since 1869 when Graebe and Liebermann learned to make beautiful red and purple dyes synthetically from anthracene, the Germans have led the world in producing colors from coal tar. American chemists are now hard at work creating satisfactory substitutes for many of these preparations. Powder and dynamite, for warlike and peaceful uses, are made in vast quantities here, as at Wilmington, Delaware. The industrial uses of dynamite are increasing. It is extensively employed for clearing and ploughing rough land. American fertilizers are world famous,

Chemical
Industries and
the Great War

Principal
Chemical
Manufactures

though some of their essential ingredients were, down to 1914, "made in Germany." The popularity of electric light has somewhat retarded but has not abolished the business of making gas for illuminating and heating purposes. In most cities are large plants for manufacturing gas from coal or water or both. As the stream of gas from the retorts is passed through seemingly endless coils at various temperatures it drops solid by-products which may be saved and utilized in other industries. The reclamation of grease converts waste into wealth; to the industrial chemist every cubic yard of garbage and city refuse has its financial value. The more people read the wider the demand for printing ink and typewriter ribbons, though the increasing use of the latter has somewhat decreased the manufacture of writing fluids. American paints are standard everywhere, though the active Germans have been superior in certain paint specialties, and the English and French are ahead of us in making a good quality of artists' materials. The oil pressed from cotton seed, once wasted, is now used for food and industrial purposes. Its future as a business in this country depends on the South's continuing to grow cotton on land that can sometimes be more profitably used for market gardening and similar crops. The patent medicine trade has been hard hit by "exposures" in the press of the country and by the tendency of sensible people to take fresh air and nourishing food in place of drugs and nostrums. There are, however, certain standard medical preparations for which the demand is constant and legitimate. As personal cleanliness becomes more nearly universal the soap-maker finds business to his advantage. The laundries, whose remarkable progress we have seen, use immense quantities of liquid and solid soap. This is a manufacture in which Americans have long been eminent. The various acids used for a multitude of purposes have not always been produced in the full quantities required in this country, but nothing stands in the way of

Vast Field or
the Industrial
Chemist

utilizing waste materials for a wonderful increase in their production. Chemical works to make cheap alcohol, which can be "denatured" and used for a thousand purposes, are still far less common in the United States than in some other countries. The extension of the turpentine industry of the South, which is threatened by the present denuding of the yellow pine forests from North Carolina to Texas, will probably be carried to Mexico and Central America where great areas of the same wood await exploitation.

The earning power of chemistry is so great and its possibilities of putting an end to American wastefulness are such that a wonderful future may confidently be predicted for most chemical industries. What the chemical engineer looks forward to may be indicated from this statement by Arthur D. Little, former president of the American Chemical Association:

"So heedless and appalling is this waste that the mind trained in chemistry stands aghast. I have lately visited a Southern lumber mill which burns 1,900 cords of wood a day in its incinerator. There are 200 such burners in the country, limited in destructiveness only by the amount of material sent to them. From such material chemistry is prepared to extract 3 gallons of turpentine a cord, 10 gallons of ethyl alcohol, or paper pulp to the value of \$20. We waste each year 500,000,000 tons of coal and each day a billion feet of natural gas. With peat deposits fringing our entire eastern coast we pay \$4 a ton for coal delivered on the bog. Beehive coke ovens flame for miles in Pennsylvania and excite no comment, while the burning of a \$1,000 house would draw a mob. We fill the Merrimac River with wool grease, making it a stench, while the towns along its course buy soap and fertilizer and lubricants from Chicago, Chile and Pennsylvania. Over the great Northwest we burn each year 5,000,000 tons of flax straw while we pay \$40 a ton for imported paper stock from Norway. In the South 300,000 tons of paper

Wonderful
Future of
Chemical
Industries

American
Wastefulness
Appalling

fibre of the highest grade are burned with the cotton seed hulls to which it is attached, or are used with them to adulterate cattle feed. Cornstalks to an incalculable tonnage rot or are burned each year, while chemistry stands ready to convert them into feed containing 30 per cent of sugars on the dry basis, or into alcohol for light and power. Waste molasses is sold for three cents a gallon or dumped into the stream, while alcohol sells for 40 cents a gallon. Skim milk is fed to hogs or thrown away because no one has the enterprise to extract its casein which is worth more than beefsteak for food."

There are only about ten thousand professional chemists in the United States, according to the foregoing authority. Considering the vastness of the chemical industries and the certainty that they will all be much further developed, it is evident that young people who have taste for scientific study and research and the means to become properly qualified cannot be too strongly urged to see the possibilities in chemistry. As regards non-professional workers the situation is not so promising. Wages for the whole group are low, averaging under \$10 a week. In the typical chemical industry many low-skilled workers are employed. Their labor may be disagreeable and dangerous, with special liability to occupational diseases caused by the materials handled. Ordinarily, therefore, if a youth enters such an establishment it should be with the purpose of mastering the details while continuing private studies of scientific subjects in order to rise above the rank and file of workers. For all who can attain expert qualifications chemistry offers fascinating, continuous and well-paid employment.

**Splendid
Openings for
Professional
Chemists**

FOOD AND KINDRED PRODUCTS

How many factories must be engaged in busily turning out articles that are fit to eat may be guessed as one looks over the shelves of a well-stocked grocery store. The men of figures say that at the last census the enu-

**The Wonderful
Variety of
Things to Eat**

merators found 55,364 of these food factories of one kind and another, employing 411,575 wage earners, who were paid \$208,563,293 and whose total product was worth \$3,937,617,891. To list the names of these products would require a book. They include the many things made from wheat, corn and other grains—flours, meals, brans, starch, breakfast foods and many more; the products of the slaughterhouse and meat-preserving factory; animal products such as butter, cheese and condensed milk; the edibles that come from the fish-curing or canning establishments; preserved and canned fruit and vegetables; roasted and ground coffee and spices; manufactures of sugar and molasses from cane and sugar beets, as well as derived products such as confectionery, syrups and cordials; flavoring extracts, chocolate and cocoa; cleaned and polished rice; vinegar and cider. It is indeed a wonderful variety of things to eat that has been substituted by mechanical ingenuity for the relatively simple fare of our ancestors.

**Outlook in
Some Food
Industries**

Whether an industry making food products is a good one to be connected with depends on many considerations. In the group as a whole the wages paid are a little below the average, and many of the separate industries are already hampered by scarcity of the raw materials. Such notably are the great meat-packing industries, which suffer from the disappearance of cattle from the Western ranges, as noted in our chapter on agriculture. The fish and shellfish preserving industries have seemed to be threatened at time by the depletion of supplies, but of late years artificial methods of hatching food fishes, lobsters, oysters and clams are making it reasonably certain that these manufactures will not fall to the rear. The making and marketing of butter, cheese and condensed milk has the same limitation, though in a lesser degree, as has the packing industry; the number of milch cows does not increase fast enough to take care of the needs of the many creameries and cheese factories that have

been established. The demand for these products is something that can be counted on. Americans of two generations ago were not fruit eaters. To-day an increasing number of people are convinced of the healthfulness of fruits and vegetables as an element of the diet. There is no limit, furthermore, to the possibilities of fruit and vegetable cultivation. Hence the canning and preserving of fruits and vegetables will probably continue to advance rapidly. The great opportunity in sugar manufacture lies in beet sugar, for cultivation of these beets with their long penetrating roots has been discovered by farmers to be an admirable means of breaking up the soil for other crops and hence there is willingness to raise them wherever a factory affords a suitable market.

The form of organization of some of these food industries makes it unlikely that the individual will ever be able to rise to independent proprietorship. The beef packers, for example, have long been well organized and have shown themselves intolerant of competition from lesser interests. They offer to wage earners labor that is rather hard, wearing and, in some departments, disagreeable to a person of refined sensibilities; to salaried persons, moderate opportunities for advancement through organizing or selling ability, or through chemical achievement, as in the utilization of by-products. The fish and shellfish packers have not yet been organized as closely as the foregoing. Labor in their establishments is not notably well paid and the conditions are not always particularly pleasant. Some of the large canners of vegetable and fruit products have almost ideal conditions for employees. Others, some of those especially in the country which operate for only a few weeks in the year, have excited the ire of the public by their unsanitary surroundings, exploitation of child labor, long hours and unsatisfactory wage scales.

**The Packing
and Canning
Industries**

The country's sugar business has long been controlled by two great opposing interests: the cane sugar import-

ers and refiners on the one side and the beet-sugar men on the other side. Between the two there is little chance for the small business man. Butter prices throughout the country were for many years controlled by a board of capitalists meeting at Elgin, Illinois. This board has lately been under regulation of the national government.

LIQUORS AND BEVERAGES

The manufacture of alcoholic and nonalcoholic beverages is an industry conducted in 7,347 establishments by 77,827 employees, who receive \$53,501,779 for their labor and who make a product valued at \$674,311,051. The principal alcoholic beverages are beer and whisky, both made from grain; wine and brandy made from grape and fruit juice; and rum, produced by distillation from molasses. The government's total includes the making of many so-called "temperance drinks," not a few of which contain a small percentage of alcohol.

This whole group of industries is questionable from a moral and economic viewpoint. Men and women who work in them cannot so readily feel an honest pride in doing something that is surely benefiting their fellow human beings. Even most of the various soda fountain drinks, which were for a long time regarded as innocent and harmless, have been found in governmental investigations to be more or less injurious to the digestion of those using them, while some of them contain active poisons. Scientific as well as religious sentiment has gradually revolted against the alcoholic beverages. It is now well understood that even moderate drinking slows workers down and makes them less efficient as producers, while it shortens their lives by hastening the hardening of the arteries, which is a mark of old age. So, it will be seen that practically this entire sum of nearly \$700,000,000 represents an inherited folly of mankind, one that the race will surely outgrow. Even now the number of communities in which the distribution of intoxicants is wholly

Liquor
Manufacture
Statistics

A Questionable
Group of
Industries

or partly prohibited is increasing, and public sentiment no longer tolerates an amount of drunkenness that was once accepted as a matter of course. The result is that liquor manufacturing is not so good a "business proposition" as it was a generation ago.

TEXTILES

Clothing for protection against the elements and for decency is one of the essentials of civilization. The United States has a large share in supplying this demand of all peoples and races for textile fabrics. Besides furnishing a very great part of the world's cotton and a considerable part of its wool, the nation has developed immense manufacturing industries devoted to fashioning fabrics of one kind and another and to converting these fabrics into articles of wearing apparel or for other uses. The total of these manufacturing businesses amounted in 1909 to 21,595 establishments, employing 1,437,258 wage earners at wages totaling \$591,778,365 and with a product valued at \$3,054,708,084.

**Vast Business
in Textiles in
United States**

These figures cover a most marvelously complex group of manufactures. To satisfy the requirements of people for suitable fabrics, the entire animal and vegetable kingdoms have been ransacked for fibres that can be spun and woven or knitted into cloth. Wool is not produced in large enough quantities to meet the demand for warm clothing—not even though old woolen cloth and rags in vast quantities are torn to pieces and re-woven as shoddy or mungo. Cotton is raised in immense bulk, but there is not always enough of it and there are many uses for which it is not fit. To this country are brought large amounts of raw silk from China, Japan and southern European countries, out of which silk fabrics and threads are made. Flax rendered suitable for linen fibres by processes of "retting" is not grown here, but the importations of it from Russia and other countries furnish a supply for many factories. The white silky fleece of the Angora

**Marvelously
Complex
Group of
Manufactures**

goat, pastured on the high plateaus of Asia Minor or in some parts of our Western States, gives us mohair which is coming into ever-increasing use. From hemp and jute are made rough strong fabrics and rope and twine. Clear liquid cellulose, made from wood pulp, is squeezed through minute holes and the strands, hardened, are woven into a sort of silk. Threads of gold and silver are introduced into costly fabrics, and tin is applied to making cloth stiff and heavy. New materials are coming into practical use. Ramie, the fibre of a prolific nettle growing in the tropics, yields a thread that has been found well adapted to hosiery and other garments. A seaweed found off the coast of Australia may be spun and woven into a fabric resembling wool; it is already beginning to appear in the markets. Abroad a limestone wool is made by subjecting limestone to intense heat in the electric furnace; the result is a fluffy substance which may be spun and woven and which when soiled is cleaned not by washing it but by putting it into the fire.

The making of many textiles in this country is rather definitely localized. There are sections where you cannot go five miles in any direction without passing a textile factory, and there are others where school boys and girls know about spinning and weaving machinery only through reading. Many of the earliest of these factories were located in New England. The people there had to develop such industries because their farms, never very fertile, could not compete with the new lands of the Middle West. The excellent water power of New England rivers encourages the building of factories and the climate, especially near the coast, is damp enough for good spinning—a very important consideration. The result is a great group of textile-manufacturing cities and villages: Fall River, Lowell, Manchester and Taunton making standard cotton goods; the old whaling city of New Bedford specializing on fine cottons; Lawrence with the finest woolen mills in the nation; Ludlow weaving

Spinning
Nettles,
Seaweed and
Limestone

Textile Industries of New
England

jute and hemp; Sanford built up entirely on mohair; Hartford making many carpets and numerous other allied industries. Although New England of late years has met with keen competition from other sections, its textile factories, so great is the world's demand for clothing, have never had any considerable setback. The industries are still growing and apparently will long continue to do so.

Meantime textile factories have been springing up in other places, and most of these have a bright future. Along the Hudson River in New York State are many knitting mills. Fashion has lately set very strongly toward knit goods (as opposed to woven goods), so that knitting mills are likely for a long time to come to be very busy. In Greater New York is made much of the duck that is used for suitings and tents and awnings. At Paterson, New Jersey, is America's leading centre of silk manufacture. One of the chief industries of Philadelphia is the making of rugs and carpets. Then as one goes south into the regions where cotton is grown, one finds that many of the waterfalls there have been harnessed to run mills that closely resemble those of New England. The growth of Southern cotton factories in the past thirty years has been very remarkable, and there is still room for many more of them.

The textile industry as a whole is, therefore, well established and is sure to expand further. A large part of the world is still underelad, and American ingenuity can be relied upon to supply more than its share of the needful fabric for clothing and accessories. Investments in textile enterprises have often been very fortunate, for the profits in "boom" times may be large and skilful management keeps down the losses in periods of depression. The chances for the energetic man, able to command some capital and capable of learning the business, are very good. The nearest approach to control is in the woollen business where a single firm has a lead over all others,

**Textile Fac-
tories in
the East
and South**

**Good Openings
for the Tech-
nically Trained**

but its business is only a small part of the total. The managing, buying and selling occupations connected with the textile industries are very good ones for a competent youth to get into. The same thing is true of the scientific occupations which the cotton, wool and silk business open to technically trained people.

Labor Has Low
Wages and
Little Chance

The chief drawback in the textile industries, as surveyed by one who aims to give advice about vocations, is that they employ, as a rule, many low-skilled, low-waged men and women who get from their work little or no training that fits them to go higher. In knitting mills the individual has only about one chance in fifty of rising to a foremanship; in cotton mills, about one chance in eighty. Wages in New England cotton and wool towns are lower than in shoe-manufacturing centres of the same population. Massachusetts statistics show the following as characteristic weekly wages of textile operatives in mills which have been unionized: beamers, \$13.50-14.75; bleachers, \$7.50-10.00; carders, \$7.00-9.50; card pickers and ring spinners, \$7.50-10.50; cloth room workers, \$7.50-10.50; dyers, \$8.25-11.00; knitters, \$11.00; loom fixers, \$8.91-19.00; mule spinners, \$13.00-18.00; spinners, \$3.50-13.00; twistors (silk), \$18.00; warp twistors, \$15.39; weavers, \$5.00-14.85; winders, \$6.00-9.00; yarn workers, \$8.10. Such wages as these, it should be noted, are higher than those of many unorganized centres and of other States which successfully compete with Massachusetts owing to employment of child labor. Throughout New England wages in the textile towns long ago ceased to have any attraction for the native population and the supply of labor has been drawn at first from the British Isles and Canada and more lately from the countries of southern Europe. In the South an important source of labor has been found in the population of the mountain districts, where opportunities to earn a regular wage have until recently been few.

Native Popu-
lation Avoid
Textile
Factories

Modern textile factories are well lighted and venti-

lated. The heat and excessive moisture in some departments are trying to the operatives, especially in winter when they go out into chilling blasts after a day in the humid, enervating atmosphere of the mill. Much of the work is monotonous and exacting rather than physically exhausting. Some of the danger from accidents and occupational diseases has been removed in the better class of factories by protective devices, by elimination of the famous "kiss of death" process of setting shuttles, and by arrangements for removing the dust that is a frequent factor in consumption. Except for the low wages paid, which make it hard for many of the operatives to maintain their health and strength, the conditions are fairly favorable in the textile mills to the employment of people who can perform routine labor faithfully and who might not be capable of labor requiring greater initiative and constructive imagination.

Conditions
in Modern
Textile
Factories

Ambitious and competent young men and women should enter the textile industry, if at all, with a definite view to becoming specialists in some one or other of the productive departments. Just what the opportunities are for highly skilled workers may be learned from a study of the announcements of the textile schools at Lowell and New Bedford, Massachusetts.

After the cloth has been woven it becomes the basic material for a multitude of secondary textile manufactures. Of such sort is the making of clothing for men, women and children, of sails, awnings and hammocks, flags and emblems, horse clothing and many others. The garment and needle trades, in especial, are among the very important industries of our larger cities, giving employment to great numbers of men and women. These trades have largely taken the place of home manufacture of clothing. Two generations ago the clothes worn by women were made in the household, men's clothes either there or in the small tailors' shops. About 1850 began the manufacture of ready-made clothing for men.

The Garment
and Needle
Trades

Soon after it was found that women would buy cloaks manufactured in a workshop. About 1880 commenced the present enormous business of making every sort of women's wearing apparel on a large scale under the factory system.

These trades in the past have known grave abuses: employment at very low wages of home workers who fashion garments during long hours in unsanitary tenement houses. Public opinion, the law and the greater enlightenment of employers and employees have considerably changed conditions in these clothing trades. Regular wages have taken the place of the "task" or "piece" price. The hours are better regulated and less of the work is done at home than formerly. The wages are generally good, though the trades are subject to slack times in which many of the workers are thrown out of employment. In New York State an investigation has shown that the average daily wages of cloak and suit cutters are \$4.02; cloak and suit makers, \$3.85; clothing cutters and trimmers, \$3.46; clothing pressers, \$3.13; coat, pants and vest makers, \$2.36. Weekly wages in Massachusetts show these figures: bushelmen, \$14.00-15.00; cloth pressers, \$13.00; clothing pressers, \$18.00; coat makers, \$17.00-20.00; finishers, \$15.00; finishers' helpers, \$8.00; pants makers, \$12.00-15.00; piece pressmen, \$15.00-18.00; pressmen, \$22.00; tailors, \$14.00-20.00; vest makers, \$15.00-18.00. The conditions and requirements in these trades are somewhat similar to those of the millinery and dress-making businesses which have already been described here.

A young man of high character and purpose entering almost any branch of the textile industry will find that there is important work cut out for him. These great businesses, while many of them have been honestly conducted, have as a class notoriously lagged behind others in regard to trade deceptions and sense of responsibility for the welfare of employees. Their moral tone has not

The Sweatshop
Abolished

Schedule of
Wages of
Garment
Workers

been so high as might have been wished. The shoddy and misbranded textile fabrics placed on the market by many American manufacturers have been little short of a national disgrace. Neglect of the interests of foreign-born operatives has frequently laid the foundations for serious labor troubles. The industry needs in its managerial positions men of vision, conscience and faith in the readiness of humanity to respond to right doing.

Need of
"Uplift"

LUMBER AND ITS RE-MANUFACTURE

Saw mills, big and little, turn out vast quantities of timber of every size and shape. This material is used in the manufacture of boxes, caskets, cooperage, furniture, wooden ware, pulp goods, show cases, turned and carved goods and other useful objects. The grand totals for this industry are: establishments, 48,533; number of workers, 907,514; wages, \$422,764,807; value of product, \$1,582,522,263. Wood is a delightfully clean material to work in, as every boy who has taken sloyd must realize, but there are some drawbacks to the woodworking trades as sources of employment. The average wages paid are lower than those in the metal trades. Many of the manufactures are hampered by the growing scarcity of wood. Of this difficulty the very important cooperage interests, making barrels and hogsheads, are an example. The coopers' shops that were once numerous in New England have mostly disappeared. Those that have sprung up in wooded regions of the South and Middle West are already complaining of difficulty in getting the various kinds of wood needed for staves, heads and hoops. Many others of the woodworking trades are experiencing the same difficulty, the only remedies for which lie in the cultivation of forests in this country, in recourse to the great untouched forests of Central and South America and in substitution of other materials than wood for many articles of common use.

Drawbacks
of the
Woodworking
Trades

Despite these objections the woodworking trades have

considerable fascination for the young man of mechanical taste. Natural expertness with tools is a qualification in most of them. While the conditions are generally healthful (except in some shops where large quantities of paint and varnish are used), the liability of a clumsy or negligent operative to accident is very considerable. Saw mills are generally located in the country and their wages are lower than might be expected considering the skill required. Union workers in some of the secondary trades in New York City receive these daily wages: box-makers and sawyers, \$2.73; brush-makers, \$3.11; cabinet-makers, \$3.97; carriage and wagon-makers, \$3.76; machine woodworkers, \$3.26; piano and organ-makers, \$2.28; upholsterers, \$4.01; wood carvers, \$3.99. These wages are higher than would be paid for similar work in many smaller places. Some of the woodworking trades are rather definitely localized. A large proportion of our commercial furniture is made at Grand Rapids, Michigan. Gardner, Massachusetts, claims to make more chairs than any other town in the world. Winchendon in the same State is devoted largely to the manufacture of wooden toys.

VEHICLES FOR LAND TRANSPORTATION

The carriage smith from very early times has always been a highly skilled mechanic, and down to this day much of the best mechanical skill available goes into the making of vehicles of one kind and another. The government's figures under this title—6,562 establishments, 202,719 employees, wages \$121,047,239, and product worth \$561,763,289—comprise the making of automobiles, carriages and wagons, steam railroad cars, street railway cars, bicycles and motorcycles, wheelbarrows, children's carts and sleds, and the product of railroad repair shops. All these trades employ a large percentage of highly skilled workers. Some have obviously more future than others. The big increase, of course, is in automobile manufacture. Similarly the electric railway as a public

Schedule of
Wages of
Woodworkers

Good mechanics
Needed in
Manufacture
of Vehicles



YOUNG WOODWORKERS.

utility is likely, for a long time to come, to progress faster than the steam railroad. Hence a young mechanic might prefer, other things being equal, to connect himself with a shop making automobiles or electric cars. Bicycle manufacture, after the wonderful popularity of the wheel in the last century, has fallen off and in its old form has never fully regained its prosperity; the makers of motor cycles, however, report a business that grows by leaps and bounds.

The average yearly wage in the carriage-making trade (\$537 for the United States) is considerably lower than the average for the other principal occupations of this group: automobile workers, \$649; steam car makers, \$631; street railway car makers, \$607; bicycle and motorcycle workers, \$655; railroad repair shop employees, \$644. This difference may be accounted for in part by the fact that more carriage-making shops are located in small places where the cost of living is less than in the large cities.

**The Average
Yearly Wage
of Vehicle-
makers**

The automobile-making trades, which are largely centralized in Detroit, are naturally among the most attractive to young men who are anxious to rise from the bench. The wages are generally good. One well-known Detroit factory has been extensively advertised as employing only mechanics who can make themselves worth \$5 a day. The factories are usually of the highest grade as regards light, ventilation and equipment. Brisk, energetic work is expected, of a kind that an active man likes to render. The leaders of the trade are progressive men, and promotion from among the workers is on a basis of merit.

**Attractions
of Automobile-
making**

PAPER AND PRINTING

The communication of ideas and information is dependent, in modern times, on the paper and printing trades. This is not, to be sure, the only use of paper, but all the other uses, such as for water pails, railroad ties and coldproof waistcoats, are of quite secondary importance. Most paper is made to be printed or written

on. The world's capacity for absorbing reading matter is very large and all the time increasing, so that the principal problem of the paper trades is how to continue to furnish a sufficient supply of cheap paper.

Modern paper is made from three principal materials, rags, straw and wood pulp. Formerly rag paper was the chief kind in use, though the orientals for a long time past have made a beautiful thin paper from rice straw. Linen rags still constitute the basic material of much of the higher grade paper used for fine books and for documents which are designed to last for centuries. For ordinary purposes, however, most newspaper and book paper is made from wood fibre, either ground up mechanically or dissolved by cooking with sulphurous acid in boiling tanks or digesters. The wood commonly employed is that of the spruce tree, the growing scarcity of which is causing an active search for other sources of supply. In Europe much paper is made from esparto grass, a form of desert vegetation growing in north Africa.

Most of the present paper-manufacturing centres were originally located so as to be near the forests from which wood could be secured cheaply. Water power for grinding was another consideration in their location. Some of these paper towns, like those of western Massachusetts, now receive much of their material from a distance. Others, like those of northern Maine and the Adirondacks, are still far from other populous centres—a fact which the city-bred young man may wish to consider in connection with the paper trade. Canada with its vast forests has become a great factor in the world's wood pulp and paper trade.

Paper and pulp mill wages are low as compared with some other well-developed mechanical industries. This circumstance is perhaps due to their location in country districts. The average wage for operatives in the United States is a little over \$10 a week. For New York State, which has several high-grade paper mills, it is \$2.18 a

Materials
Used in Paper-
making

Location of
Paper-making
Centres

day. The business is an excellent one for experts with chemical training.

Since 1850 when the United States census first took notice of the amount of printed matter produced, there has been a steady increase in the average person's purchases of books, magazines, newspapers and other products of printing. To-day more than a quarter of a million men and women are employed in printing and publishing. The establishments vary from the little country job office with a hand press and a few fonts of type up to immense modern shops equipped with fast-working machines for typesetting and presses that make faultless impressions with almost incredible rapidity.

**The Printing
Industries**

The printing trade in every department is one of the best for a young mechanic to consider. It will continue to grow. There is plenty of chance for independent proprietorship even though the few larger shops now get special work that used to be distributed among many smaller printing establishments. The wages are good. They average \$638 a year for the whole country. In larger cities the trade is generally well organized, and the wage scales are fixed by agreement between employers and employees. In Massachusetts wages for compositors capable of operating linotypes and other typesetting machines are from \$14.00-28.14. Job pressmen make from \$13.50-17.00; cylinder pressmen, \$18.00-22.00; web pressmen, \$19.00-27.00. Electrotypers and stereotypers earn \$18.00-24.00. In the allied trade of bookbinding these are sample wages: men—cutters, \$18.00; finishers, \$20.00; forwarders, \$18.00-21.00; paper rulers, \$15.00-18.00; women—bindery forewomen, \$12.00; bindery machine feeders, \$8.00; sewers, \$10.00; wrappers, \$7.00; creasing machine operators, \$10.00; gold layers, \$8.00-9.00; pagers and numberers, \$9.00.

**Many Advan-
tages of the
Young Printer**

Schools or special courses of printing have been established in several places, including public high schools as well as private institutions. In small job offices boys are

received without formality and after serving as "devil" are given a chance at the case. In union offices admission of apprentices is governed by the local rules and regulations concerning which inquiry should be made.

MISCELLANEOUS INDUSTRIES

The 1910 census included under the above head ten groups of occupations of considerable present importance but not large enough for special treatment. These in the aggregate showed 16,974 manufacturing plants at which 520,351 wage earners received \$284,182,372 for a product valued at \$1,470,855,852. These groups may be briefly characterized here.

Agricultural Implements

First comes the manufacture of agricultural implements, employing about 50,000 people. For American farming machinery is the best in the world. As scientific agriculture becomes more general, exportations of implements from Chicago and other centres of this trade will presumably increase; they are already very large. The trade is to a considerable extent in the hands of a trust, the International Harvester Company, which bears a good reputation for progressiveness.

The Rubber Shoe Industry

The making of rubber shoes, rubber soles and heels is the business of 17,612 men and women. The centre of the trade is in eastern Massachusetts, where the city of Malden has some of the largest rubber shoe factories in the world. The demand for rubbers and other waterproof shoes for wet weather wear is continuous. Fashion of late years has set very strongly toward the use of rubber soles and heels with other forms of footwear. This appears to be more than a passing fad and gives assurance that the rubber shoe manufacturers will be continuously busy. The problem of the rubber supply is more or less serious, though efforts to raise rubber artificially seem to be successful in several tropical countries.

There are 16,425 button-makers in the United States. Their product, whether made from mother-of-pearl, the

ivory nuts of the Andes, bones of animals or bits of metal, are indispensable to clothes-wearing people.

A closely specialized manufacture is that of electrical machinery, apparatus and supplies, which gives employment to 87,256 workers at an aggregate annual payroll of \$49,391,145. It need hardly be said that this is an industry with a bright future. Great as has been the development of electricity in the past thirty years, the art of applying electrical power to the uses of civilized man is only just beginning.

Electrical
Machinery
and Supplies

Fur goods are made by 11,927 persons in this country, despite very large importations from Canada and Europe. The automobile has, of course, given a great impetus to this trade and has resulted in a world-wide search for skins suitable for making fur garments. Apparently successful efforts to raise fur-bearing animals may help the furriers.

On musical instruments no less than 38,020 persons are employed. This manufacture employs many highly skilled workers under fairly favorable conditions. Competition is extremely keen among the manufacturers of pianos, organs and other standard musical instruments, with the result that quality is often sacrificed. There has been a remarkable expansion of the manufacture of mechanical "players," and phonographs with musical records. These products of American ingenuity are found in the uttermost corners of the earth, often being among the most cherished possessions of savage chieftains.

Musical
Instruments

Considering the universality of photography, it may be a surprise to note that only 5,195 persons are directly employed in making photographic apparatus and supplies. One explanation, of course, is that down to 1914 immense quantities of photographic materials were imported from Germany. The many uses and amusements connected with the camera make this a promising business, and one well worth considering.

Ship and boat building is of less account here than in

Boat Building

some other countries which have maritime ambitions. Yet it makes work for 40,506 people, with wages of \$25,-267,686 and a product worth \$73,561,568. A large proportion of this total covers American love of pleasure-boat-
ing, for the making of yachts, canoes and motor boats has become an important industry. The shaping of freight and passenger boats for the Great Lakes traffic keeps shipyards busy on Lake Erie. Wooden vessels are still made on the coasts of Maine and Massachusetts, while large steel hulls are assembled in the latter State, on the Delaware and Chesapeake Bay.

Motion Picture Industry

When the census enumerators, making their rounds in 1909, undertook to include the motion picture business for the first time in their lists, they discovered only 16 manufacturing plants with 506 employees, averaging about \$12 a week and making a product valued at \$4,000,000. The next census will doubtless show a tremendous increase over these figures, for the motion picture has captivated the whole world's fancy. This comparatively new manufacture is typical of those in which many American fortunes have been laid. It has already enriched manufacturers and theatrical promoters. In the next generation it will have ceased to be a pioneer enterprise and will give a more or less regular return on capital invested and steady employment to an army of deft and intelligent mechanics.

CHAPTER XVII

THE WORK OF THE UNSKILLED

WORK that anybody can do is work that nobody ought to be willing to spend a lifetime doing. Despite the invention of machinery for doing the world's drudgery, there remains a very great amount of labor that is performed by hand with almost no requirement set for the workers except a reasonable physical strength. In some trades, as in road building, most of the actual work is done by men whose daily expenditure of thought upon their labor is very slight. The contractor and foreman do practically all the thinking; the others perform their tasks in a nearly mechanical way. Efficient employment of labor of this kind has become an art in itself. The engineer of a contracting company building a long concrete bridge has been heard to speak with pride of having reduced to a minimum the number of skilled workers needed in his line. "We look after the skill in this office and get it all so plainly expressed in the blue prints that a competent foreman can direct a whole gang of workers all the way from the concrete mixer to the pouring of the last arch ring. Each man is put in a certain place on the bridge and told to do a certain thing when the material comes along. It's part of our efficiency and economy not to require high-priced help. It breaks my heart that we still have to employ skilled granite cutters for the four-point work in finishing the piers and spandrels. Some of us ought to invent a machine which a ten-dollar a week Italian can use for the same purpose." Professional planning of this sort keeps alive the custom of engaging gangs of men who know no particular trade and who are willing

Great Amount
of Labor
Unskilled

Doing Away
With the
Skilled Worker

to work for considerably less money than trained mechanics have come to demand.

Although in good times the demand for this unskilled labor is brisk and almost any able-bodied young man or young woman can get work, it is a misfortune for the average young person who has had even the rudiments of a common school education to be forced into the class of common laborers. The misfortune is considerable from a financial point of view. Wages throughout the country are low for this kind of work, and they apparently always will be so, even though state legislatures may pass minimum wage laws. Twelve dollars a week is about the maximum that the unskilled man may expect, and he is lucky to escape long periods of unemployment. Whenever business is depressed the streets are full of laborers willing to work for the merest pittance. These are not tramps and loafers by disposition but, most of them, hard-working, honest people who only ask for a chance. In a State where the public has interested itself in trying to find work for the unemployed, this is a characteristic report sent to employers from the Boston Free Employment Bureau:

**Very Low
Wages of Un-
skilled Labor**

"In the unskilled men's department there are registered a large number of men wanting positions as janitors and watchmen who seem to possess good habits and references. Teamsters and helpers on teams can be supplied in Boston on very short notice. The office can supply laborers at the rate of 20 cents an hour, and there is a considerable class of young men who say that they are willing to take almost any kind of work at \$5, \$6 and \$7 a week. Experienced elevator boys and men can be supplied at \$8, \$9 and \$10 a week."

**A Typical
Report**

The unskilled laborer, as a rule, never rises above two dollars a day, and after he has passed the age of forty his chance of commanding that amount steadily diminishes. He has furthermore but little chance of rising from his class into the better paid positions open to

skilled workers, for no one pays any attention to teaching the laborer anything more than what the foreman requires on each job; and after a day of severe physical effort the man or woman is usually too tired to apply himself to study. It is a general rule that once an unskilled laborer always an ill-paid individual.

With the low wage go manifold discomforts and dangers of existence. Because "money is not everything" young people are sometimes misled into an equally prevalent notion that "money will not buy health and happiness." In the hands of persons of intelligence and discrimination it will buy both. Families in which there is not money enough for the purchase of sufficient nourishing food in reasonable variety and of warm and tasteful clothing are just the families in which disease finds its first victims. While wealth will not always purchase long life for its possessor, the principle still stands that the lower the individual's wages the shorter his life will probably be, and the less will be his genuine satisfaction and comfort going along. Skilled workers in trades where the experienced person may rise to thirty dollars a week or more and where the hours of labor are carefully guarded, can live in a degree of decency that is unknown among the ten-dollar workers, can lay by a little something toward old age, and can face the future without the dread of ending in the almshouse or tuberculosis sanitarium. People who sentimentalize about "honest toil" are very apt to draw a strong contrast between the worried, harassed man of means and the care-free, happy toiler in the ditch. The true fact of the case is that both men may be frequently worried, but that the digger on a dollar and a half a day with perhaps a sick wife and five small children to support has by far the more genuine cause for worry.

There is little or no education in most of the work done by unskilled labor. A very real advantage connected with nearly all skilled labor, whatever its kind, is that it

**Money Will
Buy Health,
Happiness
and Longer
Life**

**More Genuine
Cause for
Worry**

continues the education of the individual's powers and resources which was started in childhood by the school. Whether a person works among machines or performs purely intellectual operations, his efforts to attain skill are all the time broadening and deepening the stream of thoughts and feelings which composes his life as it runs on from year to year. The clever mechanic is often in essential respects as highly educated a man as the lawyer or physician of the same community. The casual laborer, however, all whose thinking is done for him by a foreman, lives a life that undergoes almost no enrichment from its work processes. The greatest good thing for any and all of us is to expend our native powers in useful ways. Than this there is no finer pleasure. Such development is what prevents the human being from being like the clod under his feet. Other things, of course, may keep the unskilled laborer from becoming a mere dull piece of animal mechanism. His pleasures, his religion, his family associations may help to save him and keep him human. But his work at any rate will fail in any large degree to develop him.

But, it will be said, there is a great deal of this unskilled work that must be done, and therefore it is a good thing that there are always people needing employment. Someone must perform the hard labor for civilized society. This, of course, is practically the situation, though there is a certain answer even to this argument. So long as there are plenty of people to perform unskilled labor at very low wages, employers will be content to have much of their work done that way. If, however, such help grows scarce and wages rise, they will employ inventors to devise means by which machines, usually supervised by skilled mechanics, will take the place of the laborers who are lacking. No one need fear the results of education that places boys and girls above the rough, menial tasks that have always been done by human hands. Man's ingenuity is remarkable, and there is generally a

**Skilled Labor
Continues the
Education of
the Worker**

**Substituting
Machinery for
Unskilled Labor**

means of getting around any difficulty caused by a shortage of unskilled laborers. The ideal condition will be reached when all who are capable of being educated to any degree of skill are employed at the better wages accorded to such workers, and when only a very small amount of casual labor remains to be done by the unfortunate minority who are incapable of really learning anything.

Education leading to skill and efficiency is, therefore, justified on every conceivable account. Untaught, unskilled people are exposed by the conditions of their work and living to the greatest dangers of disease, depression and immorality. They are more likely than higher-waged men and women to fail to be completely self-supporting and to be dependent in whole or in part on the charity of relatives or of society at large. They are the least able, in a serious, dignified way, to assert their right—the right of every human being—to the decencies of existence. Every young person who rises out of this class and who makes himself an effective worker in any useful pursuit is working not only toward his own personal good but for the benefit of all his fellow beings.

**Education of
Workers
Justified on
Every Account**

The number, furthermore, of those who are incapable of being educated to skill in any line is very small. It includes some feeble-minded; though most, even of these unfortunates, under guidance may learn to perform useful work with very considerable dexterity. It includes possibly a few who were born excessively dull and whose faculties were not awakened during early childhood by appropriate exercises. Now and then an individual may have so unstable and disordered a nervous organism that sustained application at productive work seems impossible. These and other similar cases belong to the schools which are beginning to be established for abnormal people. But practically all the boys and girls who are able to make their way through the graded schools, though better in some studies, perhaps, than in others, need only

**Very Few
Incapable of
Acquiring Skill**

guidance and special vocational training to avoid the probability that at twenty or twenty-two they will be members of the great army of casual workers, willing to do anything to earn a dollar but unable to do something for which anybody will pay a substantial wage.

We cannot urge too strongly, in closing this chapter, the right and duty of families, most of whose members are unskilled laborers, to do everything possible in order that the younger generation may become skilled. This topic does not, perhaps, need very much preaching. Most fathers and mothers who have been obliged to do inferior and poorly paid work all their lives, are only too anxious that their sons and daughters shall have a better chance than they have had. "Learn a trade" is the advice given most frequently to the young people in families of this type. Yet, where both parents are hard-worked and tired it is often difficult for them to devote much energy to co-operating with the children in finding out just what kind of work they are best fitted for and how they can get into it. The needs of these families make it especially important that others besides the parents shall be interested in the future of all such young people.

Duties of
Parents and
Friends to
Young Workers

CHAPTER XVIII

THE YOUNG READER'S FUTURE

LET us suppose that you have profited from the information carefully garnered here for your future success, and that you have in real earnest tried to find out with your parents' and teachers' help how you could best make your way to a position of useful service to your fellows. Most of the young people who read this book will without any doubt begin forthwith to plan the building of their careers, as energetic boys and girls may always be trusted to do.

To the good sense and ambition of courageous youth, then, these closing pages are addressed. We need to consider now some matters which invariably attend true success in the work of the world. The whole story is not yet told, although we have gathered information about the many different occupations. To acquire such information is supremely important; this is why so large a portion of the present book is given up to the statement of facts about these various occupations. Very few individuals could afford the means and the time to gather these facts for themselves. But back of all such information, behind the picture of what active men and women are doing, there are certain other facts which must always be borne in mind.

Seeking
Essential
Truths

You have seen a grocer open his shop, perhaps near a lively centre of the town's traffic. The windows show an attractive display of canned goods, vegetables, and meats; interesting placards describe the prices and quality of the goods. Over all is the blaze of electric lights. The opening seems to be quite promising. Weeks go by; then one day a sign is hung over the locked doors of

the grocery announcing the failure of the business. "Too bad," people comment carelessly as they pass by, and straightway this incident is forgotten till another like it happens; next time it may be a tailor's or a dressmaker's or any other kind of business, which has gone under.

What has been the matter? Clearly, to open a store, however attractive and well supplied, does not necessarily mean success. Indeed many who attempt to start in business for themselves, sooner or later find the struggle too much and go under. Various people have tried to discover how many of those who start out in a business of their own succeed. We have no accurate figures, but it is the opinion of those who have studied the matter that not more than half succeed. Whatever may be the true figure, we may accept the statement that the chance of failure in any enterprise on which we embark is no trifling matter.

Some bright young reader will probably ask at this point, "How about the great stores, and railroads, and steamship lines, and all the wonderful business plants of our country? They all started small and somebody with courage must have backed them at the start. We should not have the great country we now have but for such pioneers who were willing to take risks, and work." This is the truth. The beginning of our great department stores, for instance, was often in a shabby little notion shop on an obscure side street. There is a wonderful store in a certain city of the East; it occupies a whole block of a busy shopping centre. Its windows and interiors are so attractive that many people go there merely to admire the beauty of the establishment. In the office of the president of this business there are no pictures or ornaments except one faded little colored print in a cheap old frame. This is the picture of this great store at its beginning on the ground floor of a small frame house. Beginnings, then, of even the world's greatest enterprises are usually modest.

Considering
the Chance of
Failure

Modest
Beginnings

But to get back to our point, just now of most interest. What makes one man succeed so well, and another who seems to try just as hard fare so poorly? No one should presume to judge the success or failure of others without a good deal of charity. What the world has sometimes called a failure the verdict of history later pronounces a glorious success. Take the case of many a famous inventor. Working for years in grim poverty on an idea, almost starving while developing it, the inventor may give up all his strength until there is no more power for work left in him. At last the idea triumphs and the world is the richer for a new invention. But the victory has come too late to save the man of genius. Shall we say he was a failure because he suffered to give birth to a thought? Surely this would be a poor world to live in if there were no people who cared little for comfort, for things, for mere possessions. True failure is to neglect to make the most of what is in us and of our opportunities. Waste is the great failure, waste of time, of thought, of things. Herein lies the true test of successful lives. To use to the utmost all the powers that we have is to be on the way to achievement. To do less than our best is to invite misfortune.

**What Is
Failure?**

Whatever chance or mischance may lie in circumstances, we may well decide that each individual has a good deal to do with his own fortune or misfortune. In a stirring country like our own, with its great enterprises, individuals must count on their own ability and exertions; people are too busy to trouble themselves about those who do not make great efforts. Unlike savages, or the infant mind which "takes no thought of the morrow," every American youth must live and work with the morrow in view.

**Each the
Architect of
His Own Fate**

"But we live in a world of human beings, of neighbors. Shall we devote ourselves only to a selfish effort to get ahead?" some thoughtful young reader will ask. But we are not selfish when we fit ourselves for useful work

and so plan to serve the world. We are selfish when we do not plan to do this, but allow ourselves to drift into idle comfort and ease. Without the strength of mind and purpose to deal with the many situations which are sure to confront us we may become drifters instead of navigators, floating derelicts instead of controlled vessels. Each one of us is a bundle of habits, good or bad, as has been often observed. It is our business to train ourselves in habits of intelligent decision.

Let us now consider in more detail the qualities and conditions which have so much to do with failure or success. First of all, are you attentive? How many of you after reading one of these pages could write a letter giving the main points? If you cannot give a good account, even though it be in only a few sentences, of what you have read, you have shown weakness of attention. Try this test and see who can tell most about any page which has been read. If your mind cannot retain any fair number of ideas and facts which you have just been considering, the chances are that you will do poor work in an office or business. Neither will you do well in a profession if your mind is a sieve. Attention, then, is something we must assiduously cultivate, as it will settle our fate to a large degree.

Now we sometimes fail to attend because we are not interested. It is probable that we are attentive enough if we take an interest, as we do, say, in baseball. Many a boy can tell the names of all the well-known baseball players and even remember their professional standing in terms of percentages. Such interest, however, is too limited. Life is not made up entirely of games and players. If we do not show a fair amount of interest in other fields, we prove ourselves to be in need of "waking up."

Attention is not only a measure of our interest. It is a measure of the strength or weakness of our brain and body. That is why you are so often urged in school to

First of All,
Attention

Engaging the
Interest

give your whole mind to the task in hand. Your teachers are trying to steady your minds, to keep them from wandering. If we begin by letting our thoughts continually play truant, we shall have a very hard time of it later in life when everything will depend on our being "all there." A great prison warden knew the importance of steady attention. When men, broken through evil doing, came to his prison, his plan for building them up was to give them as a first task a hammer, chisel, and block of stone to work on. If the men did not attend to the task in hand they were certain to bruise their fingers with the blows of their hammer. After a number of such shocks they always began to keep their minds on their work, and not until they learned to do this could any progress be made in their development and improvement.

**Strengthening
the Mind**

In the industrial world, however, employers do not concern themselves with such training. If the boy does not attend to his work, if he makes too many mistakes or spoils material through inattention, he is, of course, promptly discharged. On the other hand if he cares very much to do well, his tasks will become wonderfully easy. A boy with a very great interest in his future is already on the road to realizing his ambitions. Great interest is half the secret. Robert Louis Stevenson said that "genius is a certain ardor of the soul." Watch the boy who cares. Big things are in store for him. Whatever the work, we are undergoing tests as to our mental and physical powers. We are testing ourselves, and others are testing us. A great physician has said, "Good work is the safeguard of personal health. I firmly believe one-half of the confirmed invalids of the day could be cured of their maladies if they were compelled to lead busy and active lives and had no time to fret over their miseries."

**The Boy
Who Cares**

Work is the great source, then, of health and satisfaction. One fine quality about all work, if done under

proper conditions, is that it is usually for the benefit of others. We do not make shoes or clothing or write books for ourselves. We have others in mind, and we subject ourselves to their approval or disapproval. We are under the scrutiny of the world. In the same way we judge those who are selling us goods or labor. The sense of giving satisfaction to others is one of the most inspiring of all human feelings. It is worth every effort to make one's self capable of giving satisfaction to others. To be efficient is to know how to satisfy others.

Our first duty, then, is to find the work in which we can best render service to others, while advancing ourselves. No haphazard choice is permissible here. We may be to some extent coerced by circumstances. We may be at first in doubt as to the proper occupation to enter. But the right spirit of energy and earnestness will soon set our feet in the path of service and progress.





